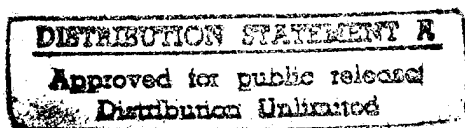


R, D, T and E Programs (R-1)
Department of Defense Budget for
Fiscal Year 1985

(U.S.) Department of Defense, Washington, DC

1 Feb 84



19960305 016

DISCLAIMER NOTICE



THIS DOCUMENT IS BEST QUALITY AVAILABLE. THE COPY FURNISHED TO DTIC CONTAINED A SIGNIFICANT NUMBER OF PAGES WHICH DO NOT REPRODUCE LEGIBLY.

R, D, T & E PROGRAMS (R-1)



*DEPARTMENT OF DEFENSE BUDGET
FOR FISCAL YEAR 1985*

FEBRUARY 1, 1984

REPORT DOCUMENTATION PAGE		1. REPORT NO.	2.	3. Recipient's Accession No. PB84-146042												
4. Title and Subtitle Research, Development, Test and Evaluation Program (R-1), Department of Defense Budget for Fiscal Year 1985				5. Report Date February 1, 1984												
7. Author(s) The Assistant Secretary of Defense (Comptroller)				6.												
9. Performing Organization Name and Address The Department of Defense Washington, DC 20301				8. Performing Organization Rept. No. R-1												
12. Sponsoring Organization Name and Address The Department of Defense Washington, DC 20301				10. Project/Task/Work Unit No.												
				11. Contract(C) or Grant(G) No. (C) (G)												
15. Supplementary Notes				13. Type of Report & Period Covered FY 1985												
				14.												
16. Abstract (Limit: 200 words) This document provides details of the request for the FY 1985 Research, Development, Test and Evaluation (R,D,T&E) Program of the Department of Defense. It is derived from and is consistent with the DoD Five Year Defense Program R,D,T&E Annex data base.																
17. Document Analysis a. Descriptors <table border="0"> <tr> <td>Department of Defense</td> <td>Development</td> <td>R-1</td> </tr> <tr> <td>FY 1985</td> <td>Test</td> <td></td> </tr> <tr> <td>Budget</td> <td>Evaluation</td> <td></td> </tr> <tr> <td>Research</td> <td>R,D,T&E Program</td> <td></td> </tr> </table> b. Identifiers/Open-Ended Terms c. COSATI Field/Group					Department of Defense	Development	R-1	FY 1985	Test		Budget	Evaluation		Research	R,D,T&E Program	
Department of Defense	Development	R-1														
FY 1985	Test															
Budget	Evaluation															
Research	R,D,T&E Program															
18. Availability Statement: No restriction on distribution Available from National Technical Information Service, Springfield, VA 22161 See ANSI-Z39.18)		19. Security Class (This Report) Unclassified	20. Security Class (This Page) Unclassified	21. No. of Pages 70												
				22. Price												

REPRODUCED BY
**NATIONAL TECHNICAL
INFORMATION SERVICE**
U.S. DEPARTMENT OF COMMERCE
SPRINGFIELD, VA. 22161

Preface

The R.D.T.&E. Programs (R-1) exhibit is derived from and consistent with the DoD Five Year Defense Program R.D.T.&E. Annex data base.

The R-1 is provided annually to the DoD oversight committees of the Congress coincident with the transmission by the President of the Budget of the United States Government. It is accompanied by an automated data base submission to the House Committee on Administration for input to the House Information System. An unclassified version is provided to OASD(PA) for use by non-DoD activities.

*Office of the Assistant Secretary of Defense
Comptroller*

i.e.

TABLE OF CONTENTS

	<u>PAGE</u>
DOD SUMMARY	II & III
<u>ARMY</u>	
Summary	A-I
Army R-1	A-1 thru A-13
<u>NAVY</u>	
Summary	N-I
Navy R-1	N-1 thru N-17
<u>AIR FORCE</u>	
Summary	F-I
Air Force R-1	F-1 thru F-13
<u>DEFENSE AGENCIES</u>	
Defense Agency Summary	D-I
Defense Agency R-1	D-1 thru D-4
Director, Test and Evaluation Summary	D-5
Director, Test and Evaluation R-1	D-6
Individual Defense Agency R-1	D-7 thru D-16

UNCLASSIFIED

DEPARTMENT OF DEFENSE
FY 1985 R D T & E PROGRAM

EXHIBIT R-1

SUMMARY

DATE: 01 FEB 1984

THOUSANDS OF DOLLARS

	FY 1983	FY 1984	FY 1985	FY 1986
SUMMARY BY APPROPRIATION				
RESEARCH DEVELOPMENT TEST + EVAL, ARMY	3,895,283	4,259,375	4,987,100	5,355,078
RESEARCH DEVELOPMENT TEST + EVAL, NAVY	6,100,131	7,571,718	9,826,076	11,676,119
RESEARCH DEVELOPMENT TEST + EVAL, AIR FORCE	10,621,181	12,220,706	14,401,955	13,720,719
RESEARCH DEVELOPMENT TEST + EVAL, DEF AGENCIES	2,153,189	2,767,420	4,707,906	7,091,251
DIRECTOR OF TEST + EVALUATION, DEFENSE	55,000	49,000	62,000	72,055
TOTAL RESEARCH, DEVELOPMENT, TEST & EVALUATION	22,824,784	26,868,219	33,985,037	37,915,222
SUMMARY RECAP OF RESEARCH CATEGORIES				
RESEARCH	787,202	839,696	899,844	1,024,507
EXPLORATORY DEVELOPMENT	2,450,853	2,202,489	2,326,919	2,643,750
ADVANCED DEVELOPMENT	3,823,700	5,947,736	7,693,342	11,401,923
ENGINEERING DEVELOPMENT	8,628,421	9,203,300	12,010,427	10,761,347
MANAGEMENT AND SUPPORT	2,242,760	2,332,663	2,514,680	2,811,468
RESEARCH AND DEVELOPMENT (FYDP PROGRAM 6)	17,932,936	20,525,884	25,445,212	28,642,995
OPERATIONAL SYSTEMS DEVELOPMENT	4,891,848	6,342,335	8,539,825	9,272,227
TOTAL RESEARCH, DEVELOPMENT, TEST & EVALUATION	22,824,784	26,868,219	33,985,037	37,915,222

UNCLASSIFIED

UNCLASSIFIED

DEPARTMENT OF DEFENSE
FY 1985 R D T & E PROGRAM

EXHIBIT R-1

SUMMARY

DATE: 01 FEB 1984

THOUSANDS OF DOLLARS

	FY 1983	FY 1984	FY 1985	FY 1986
SUMMARY RECAP OF BUDGET ACTIVITIES				
TECHNOLOGY BASE	3,238,055	3,042,185	3,226,250	3,667,205
ADVANCED TECHNOLOGY DEVELOPMENT	822,525	1,386,195	3,421,028	5,673,076
STRATEGIC PROGRAMS	5,825,208	7,842,682	8,735,235	7,968,757
TACTICAL PROGRAMS	7,254,970	7,908,741	10,510,057	11,853,968
INTELLIGENCE AND COMMUNICATIONS	2,708,625	3,404,186	4,215,671	4,605,301
DEFENSEWIDE MISSION SUPPORT	2,975,401	3,284,230	3,876,796	4,146,915
TOTAL RESEARCH, DEVELOPMENT, TEST & EVALUATION	22,824,784	26,868,219	33,985,037	37,915,222

SUMMARY RECAP OF FYDP PROGRAMS

STRATEGIC FORCES	774,282	736,033	871,572	848,333
GENERAL PURPOSE FORCES	1,174,705	1,431,713	2,077,144	2,270,114
INTELLIGENCE AND COMMUNICATIONS	2,911,413	4,091,818	5,296,465	5,750,749
AIRLIFT/SEALIFT	9,604	11,190	33,116	28,443
RESEARCH AND DEVELOPMENT (FYDP PROGRAM 6)	17,932,936	20,525,884	25,445,212	28,642,995
CENTRAL SUPPLY AND MAINTENANCE	16,988	63,858	250,558	362,207
TRAINING MEDICAL AND OTHER		2,846	7,208	7,517
SUPPORT OF OTHER NATIONS	4,856	4,877	3,762	4,864
TOTAL RESEARCH, DEVELOPMENT, TEST & EVALUATION	22,824,784	26,868,219	33,985,037	37,915,222

PAGE III

UNCLASSIFIED

ARMY

UNCLASSIFIED

DEPARTMENT OF THE ARMY
FY 1985 R D T & E PROGRAM

EXHIBIT R-1

SUMMARY

DATE: 01 FEB 1984

THOUSANDS OF DOLLARS

SUMMARY RECAP OF RESEARCH CATEGORIES

	FY 1983	FY 1984	FY 1985	FY 1986
RESEARCH	206,152	217,461	238,808	260,920
EXPLORATORY DEVELOPMENT	469,016	469,725	548,926	560,192
ADVANCED DEVELOPMENT	1,123,496	1,325,842	1,244,509	1,477,033
ENGINEERING DEVELOPMENT	989,669	1,035,530	1,410,309	1,380,124
MANAGEMENT AND SUPPORT	803,200	830,447	864,589	1,037,595
RESEARCH AND DEVELOPMENT (FYDP PROGRAM 6)	3,591,533	3,879,005	4,307,141	4,715,864
OPERATIONAL SYSTEMS DEVELOPMENT	303,750	380,370	679,959	639,214
TOTAL RESEARCH DEVELOPMENT TEST + EVAL, ARMY	3,895,283	4,259,375	4,987,100	5,355,078

SUMMARY RECAP OF BUDGET ACTIVITIES

	FY 1983	FY 1984	FY 1985	FY 1986
TECHNOLOGY BASE	675,168	687,186	787,734	821,112
ADVANCED TECHNOLOGY DEVELOPMENT	257,434	317,709	557,338	652,341
STRATEGIC PROGRAMS	570,976	514,693	227,033	218,448
TACTICAL PROGRAMS	1,499,672	1,814,104	2,329,995	2,346,054
INTELLIGENCE AND COMMUNICATIONS	75,809	76,913	67,572	75,366
DEFENSEWIDE MISSION SUPPORT	816,224	848,770	1,017,428	1,241,757
TOTAL RESEARCH DEVELOPMENT TEST + EVAL, ARMY	3,895,283	4,259,375	4,987,100	5,355,078

SUMMARY RECAP OF FYDP PROGRAMS

	FY 1983	FY 1984	FY 1985	FY 1986
STRATEGIC FORCES	51,909	36,239	198,378	147,707
GENERAL PURPOSE FORCES	195,199	262,264	298,519	246,544
INTELLIGENCE AND COMMUNICATIONS	56,642	81,867	79,098	88,046
RESEARCH AND DEVELOPMENT (FYDP PROGRAM 6)	3,591,533	3,879,005	4,307,141	4,715,864
CENTRAL SUPPLY AND MAINTENANCE			103,964	156,917
TOTAL RESEARCH DEVELOPMENT TEST + EVAL, ARMY	3,895,283	4,259,375	4,987,100	5,355,078

UNCLASSIFIED

DEPARTMENT OF THE ARMY
FY 1985 R D T & E PROGRAM

EXHIBIT R-1

APPROPRIATION: 2040 A RESEARCH DEVELOPMENT TEST + EVAL, ARMY

DATE: 01 FEB 1984

PROGRAM LINE ELEMENT NO	ITEM NOMENCLATURE	ACT	FY 1983	FY 1984	FY 1985	FY 1986 C
						THOUSANDS OF DOLLARS
1	61101A IN-HOUSE LAB INDEPENDENT RESEARCH	1	21,902	21,862	24,483	25,710 U
2	61102A DEFENSE RESEARCH SCIENCES	1	184,250	195,599	214,325	235,210 U
3	62105A MATERIALS	1	10,488	10,807	11,896	9,884 U
4	62111A ATMOSPHERIC INVESTIGATIONS	1	5,031	4,410	4,965	8,852 U
5	62120A NUCLEAR WEAPONS EFFECTS/FLUIDICS	1	8,269	8,351	8,500	7,526 U
6	62201A AIRCRAFT WEAPONS TECHNOLOGY	1	6,484	2,832	3,146	3,372 U
7	62202A AIRCRAFT AVIONICS TECHNOLOGY	1	8,353	7,157	8,023	8,764 U
8	62209A AERONAUTICAL TECHNOLOGY	1	21,050	22,215	27,086	28,649 U
9	62210A AIRDROP TECHNOLOGY	1	1,521	1,568	1,798	2,097 U
10	62303A MISSILE TECHNOLOGY	1	29,273	30,607	31,177	34,382 U
11	62307A LASER WEAPON TECHNOLOGY	1	41,806	19,649	21,188	22,271 U
12	62601A TANK AND AUTOMOTIVE TECHNOLOGY	1	17,772	20,980	23,051	23,127 U
13	62603A LARGE CAL AND NUCLEAR TECHNOLOGY	1	15,712	19,675		
14	62617A SMALL CAL AND FIRE CNTRL TECHNOLOGY	1	9,676	9,013	9,161	6,533 U
15	62618A BALLISTICS TECHNOLOGY	1	25,575	34,596	47,916	41,558 U
16	62622A CHEMICAL AND SMOKE MUNITIONS	1	13,675	12,732	12,582	13,643 U
17	62623A JOINT SERVICE SMALL ARMS PROGRAM (JSSAP)	1	4,522	4,266	4,520	4,062 U
18	62701A COMMUNICATIONS TECH	1	10,079	12,417	16,285	22,823 U
19	62703A COMBAT SURVEILL TARGET ACQUIS & IDENT	1	3,147	3,823	4,768	4,398 U
20	62704A MIL ENVIRONMENTAL CRITERIA DEV	1	1,790	2,621	2,915	3,107 U
21	62705A ELECTRICAL AND ELECTRONIC DEVICES	1	17,173	17,953	20,821	21,247 U

PAGE A-1-a

UNCLASSIFIED

UNCLASSIFIED

DEPARTMENT OF THE ARMY
FY 1985 R D T & E PROGRAM

EXHIBIT R-1

APPROPRIATION: 2040 A RESEARCH DEVELOPMENT TEST + EVAL, ARMY

DATE: 01 FEB 1984

PROGRAM ELEMENT NO	ITEM NOMENCLATURE	ACT	THOUSANDS OF DOLLARS				E
			FY 1983	FY 1984	FY 1985	FY 1986	
							C
22	62706A CHEM BIOLOGICAL DEF & GEN INVEST	1	30,150	32,912	33,068	34,239	U
23	62707A MAPPING - GEODESY	1	6,124	7,369	8,648	9,276	U
24	62709A NIGHT VISION INVESTIGATIONS	1	12,000	16,213	21,229	22,464	U
25	62715A TACTICAL ELECTRONIC WARFARE TECHNOLOGY	1	9,882	7,892			
26	62716A HUMAN FACTORS ENG SYS DEV	1	9,515	9,825	11,468	15,271	U
27	62717A HUMAN PERFORMANCE EFFECT/SIMULATION	1	3,571	3,877	4,776	5,323	U
28	62719A MOBILITY AND WEAPONS EFFECTS TECH	1	7,479	8,241	9,217	9,257	U
29	62720A ENVIRONMENTAL QUALITY TECH	1	7,794	8,060	11,184	8,846	U
30	62722A MANPOWER/PERSONNEL/TRAINING	1	6,051	6,556	7,913	8,109	U
31	62723A CLOTHING EQUIP AND SHELTER TECH	1	7,982	6,092	8,605	8,383	U
32	62724A JT SVC FOOD SYS TECH	1	5,580	5,639	6,013	6,521	U
33	62725A COMPUTER AND INFORMATION SCIENCE	1	1,961	1,944	2,216	2,255	U
34	62727A NONSYSTEMS TRAINING DEVICES TECH (NSTD)	1	2,515	3,365	4,528	5,241	U
35	62730A COLD REGIONS ENGINEERING TECHNOLOGY	1	6,243	6,437	7,423	7,647	U
36	62731A MILITARY FACILITIES ENGINEERING TECHNOLOGY	1	4,138	4,127	4,597	4,828	U
37	62733A MOBILITY EQUIPMENT TECHNOLOGY	1	12,723	10,981	11,807	13,770	U
38	62734A MED DEFENSE AGAINST CHEM AGENTS	1	23,144	25,510	30,890	30,279	U
39	62746A TACTICAL ADP TECH	1	6,891	5,898	7,893	9,242	U
40	62770A MILITARY DISEASE HAZARDS TECH	1	25,596	24,393	22,120	22,940	U
41	62772A COMBAT CASUALTY CARE TECH	1	6,729	7,011	8,513	8,707	U
42	62775A COMBAT MAXILLOFACIAL INJURY	1	2,102	2,461	2,249	2,195	U

PAGE A-2

UNCLASSIFIED

UNCLASSIFIED

DEPARTMENT OF THE ARMY
FY 1985 R D T & E PROGRAM

EXHIBIT R-1

APPROPRIATION: 2040 A RESEARCH DEVELOPMENT TEST + EVAL, ARMY

DATE: 01 FEB 1984

PROGRAM LINE ELEMENT NO	ITEM NOMENCLATURE	ACT	THOUSANDS OF DOLLARS				FY 1986 C
			FY 1983	FY 1984	FY 1985		
43	62777A SYSTEMS HEALTH HAZARD PREVENT TECH	1	16,434	17,496	18,491		19,725 U
44	62781A ENERGY TECH APPL FOR MILITARY FACIL	1	3,016	1,754	2,128		2,242 U
	TECHNOLOGY BASE		675,168	687,186	787,734		821,112
45	63102A MATERIALS AND STRUCTURES ADVANCED DEVELOPMENT	2	8,460	5,691	9,634		17,544 U
46	63104A FUELS AND LUBRICANTS ADVANCED DEVELOPMENT	2	1,109	2,037	4,972		5,227 U
47	63201A AIRCRAFT POWER PLANTS AND PROPULSION	2	7,129	14,468	22,728		42,449 U
48	63206A AIRCRAFT WEAPONS	2		5,791	7,924		9,855 U
49	63207A AIRCRAFT AVIONICS EQUIPMENT	2	2,606	4,127	30,259		13,162 U
50	63209A AIR MOBILITY SUPPORT	2	3,340	7,037	8,202		8,379 U
51	63211A ROTARY WING CONTROLS/ROTORS/STRUCTURES	2	33,636	30,040	30,295		25,248 U
52	63216A SYNTHETIC FLIGHT SIMULATORS DEVELOPMENT	2	7,521	12,101	9,093		11,788 U
53	63218A AIRDROP ADVANCEMENT	2	1,390	1,996	4,965		8,237 U
54	63220A ADVANCED ROTORCRAFT TECH INTEGRATION (ARTI)	2		1,009			U
55	63221A NOE AVIATION AND NAVIGATION EQUIPMENT	2	920	1,400	366		3,864 U
56	63306A TERMINALLY GUIDED PROJECTILES	2	6,795	2,948	10,030		29,387 U
57	63313A MSL/ROCKET COMPONENTS	2	8,640	12,119	30,119		33,037 U
58	63314A HI-ENERGY LASER COMPONENTS	2		1,756			U
59	63322A BATTLEFIELD ENVIRONMENT SIMULATION	2			1,477		2,709 U
60	63324A ARMY DEVEL & EMPLOYMENT ACTIVITY-ADEA	2	7,300	34,113	42,517		16,604 U
61	63602A ADVANCED LAND MOB SYSTEMS CONCEPTS	2	8,461	7,650	22,637		22,800 U
62	63606A LANDMINE WARFARE/BARRIER DEV	2	8,418	12,004	12,467		10,407 U

PAGE A-3

UNCLASSIFIED

UNCLASSIFIED

DEPARTMENT OF THE ARMY
FY 1985 R D T & E PROGRAM

EXHIBIT R-1

APPROPRIATION: 2040 A RESEARCH DEVELOPMENT TEST + EVAL, ARMY

DATE: 01 FEB 1984

PROGRAM LINE ELEMENT NO	ITEM NOMENCLATURE	ACT	THOUSANDS OF DOLLARS				S E
			FY 1983	FY 1984	FY 1985	FY 1986 C	
63	63607A JOINT SERVICE SMALL ARMS PROGRAM (JSSAP)	2	2,521	1,707	4,292	5,076	U
64	63621A COMBAT VEHICLE PROPULSION SYS	2	9,980	12,952	13,311	17,543	U
65	63631A CMBT VEH TURRET AND CHASSIS SUBSYS	2	8,458	11,898	19,228	24,118	U
66	63636A COMBAT VEHICLE ARMOR/ANTI-ARMOR	2	11,377	15,794	52,385	60,872	U
67	63637A ADV PROPULSION/LAUNCH SYS FOR MUN	2		4,547	7,942		U
68	63638A NUCLEAR HARDENING ADVANCED TECHNOLOGY	2			985	982	U
69	63710A NIGHT VISION ADVANCED DEVELOPMENT	2	32,914	28,654	35,013	53,531	U
70	63725A REMOTELY PILOTED VEHICLES/DRONES	2	6,326	5,697	6,232	23,780	U
71	63731A MANPOWER AND PERSONNEL	2	7,064	9,825	17,026	18,865	U
72	63734A MILITARY ENGINEERING TECHNOLOGY	2	1,726	2,015	1,276	612	U
73	63737A ANTI-RADIATION MSL COUNTER MEASURES	2	4,035	4,666			
74	63739A HUMAN FACTORS IN TNG/OPER EFFECT	2	4,426	4,202	10,376	11,698	U
75	63742A ADV ELECTRONIC DEVICES DEV	2	3,504	3,744	5,772	6,134	U
76	63743A EDUCATION AND TRAINING	2	9,890	7,575	11,661	12,032	U
77	63744A TRAINING SIMULATION	2	2,596	3,034	4,763	5,584	U
78	63748A TEST MEASUREMENT & DIAGNOSTIC EQUIPMENT DEVEL	2	7,416	1,806	4,767	4,302	U
79	63749A TECHNICAL VULNERABILITY REDUCTION	2	11,304	7,809	6,004	5,134	U
80	63752A DEMILITARIZATION CONCEPTS	2	8,715	11,080	8,354	7,305	U
81	63756A DOD SOFTWARE INITIATIVES (STARS)	2		983	20,685	52,954	U
82	63758A AI/ROBOTICS DEMO	2			7,921	12,750	U
83	63759A CB DEF/SMK ADV TECHNOLOGY DEMONSTRATIONS	2			1,183	1,300	U

PAGE A-4

UNCLASSIFIED

UNCLASSIFIED

DEPARTMENT OF THE ARMY
FY 1985 R D T & E PROGRAM

EXHIBIT R-1

APPROPRIATION: 2040 A RESEARCH DEVELOPMENT TEST + EVAL, ARMY

DATE: 01 FEB 1984

PROGRAM LINE ELEMENT NO	ITEM NOMENCLATURE	ACT	FY 1983	FY 1984	FY 1985	FY 1986	THOUSANDS OF DOLLARS	E C
84	63761A ELEC WRFR VULN/SUSCEP TECH SUPPORT	2	5,813	8,748				
85	63762A ELECTRONIC WARFARE FEASIBILITY DEVELOPMENT	2	7,707	9,619	6,683			7,418 U
86	63763A NONSYSTEMS MEDICAL MATERIAL DEVELOPMENT	2	5,937	5,067	13,237			14,549 U
87	63764A MEDICAL CHEM DEFENSE LIFE SUPPORT MAT	2			32,450			24,060 U
88	63765A NONTACTICAL ADP TECHNOLOGY	2						262 U
	ADVANCED TECHNOLOGY DEVELOPMENT		257,434	317,709	557,338			652,341
89	63304A BMD ADVANCED TECHNOLOGY	3	142,833	152,872				20,167 U
90	63308A BALLISTIC MSL DEF SYS TECH	3	376,234	316,294	1,451			18,033 U
91	12814A SPECIAL PROGRAM	3						
92	12821A CLASSIFIED PROGRAM	3						
93	33152A WORLDWIDE MILITARY CMD&CNT SYS INF SYS	3		9,288	27,204			32,541 U
	STRATEGIC PROGRAMS		570,976	514,693	227,033			218,448
94	63215A JOINT SURVIVABILITY INVESTIGATIONS	4	1,100	1,059	990			1,068 U
95	63217A GREATER SLOPE	4	19,943	48,955	58,252			39,619 U
96	63220A ADVANCED ROTORCRAFT TECH INTEGRATION/LHX	4		25,200	48,603			61,438 U
97	63302A ANTI TACTICAL MISSILE (ATM)	4	10,000	17,193	92,335			91,434 U
98	63303A SURF TO-SURF MSL ROCKET SYS	4	2,364	15,719	35,384			42,493 U
99	63320A CORPS SUPPORT WEAPON SYSTEM	4	6,011					U
100	63323A LIGHT WEIGHT AIR DEFENSE SYSTEM	4						3,853 U
101	63604A NUCLEAR MUNITIONS AND RADIACS	4	3,953	1,833				

PAGE A-5

UNCLASSIFIED

UNCLASSIFIED

DEPARTMENT OF THE ARMY
FY 1985 R D T & E PROGRAM

EXHIBIT R-1

APPROPRIATION: 2040 A RESEARCH DEVELOPMENT TEST + EVAL, ARMY

DATE: 01 FEB 1984

PROGRAM LINE ELEMENT NO	ITEM NOMENCLATURE	ACT	FY 1983	FY 1984	FY 1985	FY 1986 C	THOUSANDS OF DOLLARS	S
102	63612A ADVANCED ANTI TANK WEAPON	4			24,901		20,801	U
103	63615A LETHAL CHEMICAL MUNITIONS CONCEPTS	4	346	13,255	16,280		22,852	U
104	63619A LANDMINE/BARRIER SYS	4	7,199	16,698	13,273		17,085	U
105	63627A SMOKE MUNITIONS AND MATERIEL CONCEPTS	4	3,640	6,745	5,041		9,073	U
106	63628A ARTILLERY/MORTAR AMMO DEVELOPMENT	4	23,318	32,386	10,880		8,652	U
107	63629A DIVISION SUPPORT WEAPONS SYSTEM	4	7,331					U
108	63632A ARMORED CMBT LOG SPT VEHICLE FAMILY	4	2,720					U
109	63633A TANK/FIGHTING VEHICLE AMMO DEVELOPMENT	4	9,733	5,773	11,364		13,897	U
110	63635A MOBILE PROTECTED GUN PROGRAM	4	8,876	20,129			16,089	U
111	63702A ELECTRIC POWER SOURCES	4	4,980	6,878	11,874		13,400	U
112	63705A PHYSICAL SECURITY	4	3,396	4,657	4,787		6,682	U
113	63706A IDENTIFICATION FRIEND OR FOE EQUIP DEVEL	4	5,779	8,136	9,714		15,661	U
114	63707A COMMUNICATIONS DEVELOPMENT	4	8,824	7,798				U
115	63709A TACTICAL IMBEDDED COMPUTER PROGRAM	4		20,500				U
116	63711A AIRCRAFT SURVIVABILITY EQUIPMENT	4	3,094	3,103	9,919		9,947	U
117	63713A ARMY DATA DISTRIBUTION SYSTEM (ADDS)	4	34,293	25,329	23,213		39,152	U
118	63718A ELECT WRFR VULNERABILITY/SUCEPTIBILITY	4	16,816	18,670	22,563		24,654	U
119	63720A CHEMICAL/BIO DETECTION WARM/SAMP MAT CONCEPTS	4		28,349	31,838		27,850	U
120	63721A CML BIO PROTECTIVE MATERIEL CONCEPTS	4	26,636	3,054	11,171		11,481	U
121	63723A COMMAND AND CONTROL	4	20,900	23,475	20,649		21,629	U
122	63726A COMBAT SUPPORT EQUIPMENT	4	6,976	7,716	15,676		42,211	U

PAGE A-6

UNCLASSIFIED

UNCLASSIFIED

DEPARTMENT OF THE ARMY
FY 1985 R D T & E PROGRAM

EXHIBIT R-1

APPROPRIATION: 2040 A RESEARCH DEVELOPMENT TEST + EVAL, ARMY

DATE: 01 FEB 1984

PROGRAM LINE ELEMENT NO	ITEM NOMENCLATURE	ACT	FY 1983	FY 1984	FY 1985	FY 1986 C
						THOUSANDS OF DOLLARS
123	63730A TACTICAL SURVEILLANCE SYSTEM	4	22,164	24,228		
124	63732A COMBAT MEDICAL MATERIAL	4	282	4,913	8,312	14,574 U
125	63740A DIV AIR DEFENSE CMD/CNTRL	4	1,000	2,645		U
126	63745A TAC ELECTRONIC SPT MEASURE SYS	4	10,601	3,460		
127	63746A SINGLE CHANNEL GRD/ABN RADIO SUB-SYS	4	15,431	2,416	2,207	4,277 U
128	63747A SOLDIER SUPPORT/SURVIVABILITY	4	2,120	3,446	7,095	7,088 U
129	63750A DRUG AND VACCINE DEVELOPMENT	4	9,121	12,373	14,473	16,264 U
130	63751A MEDICAL DEFENSE AGAINST CHEM WARFARE	4	2,916	37,333	36,659	45,913 U
131	63753A BATTLEFIELD DATA SYSTEMS	4	1,995			U
132	63755A TACTICAL ELECTRONIC COUNTERMEASURES SYSTEMS	4	20,696	49,414		
133	63764A MEDICAL CHEM DEFENSE LIFE SUPPORT MAT	4	12,219	28,430		U
134	63766A TACTICAL ELECTRONIC SURVEILLANCE SYS	4	5,687	5,100		
135	63767A COMBAT SERVICE SUPPORT CONTROL SYS	4			190	188 U
136	64202A AIRCRAFT WEAPONS	4	686	549	9,930	12,923 U
137	64204A AIR MOBILITY SUPPORT EQUIPMENT	4	564	2,377	4,017	3,700 U
138	64206A UH-60A BLACKHAWK	4	8,448	15,000		U
139	64207A ADVANCED ATTACK HELICOPTER (AH-64)	4	32,629	27,836	16,766	11,539 U
140	64212A COBRA TOW	4	212			U
141	64216A AIRCRAFT PROPULSION SYSTEMS	4			26,518	93,489 U
142	64217A SYNTHETIC FLIGHT TRAINING SYSTEMS	4	26,864	12,719	14,134	9,343 U
143	64218A AIRDROP EQUIP DEVELOPMENT	4	1,978	3,356	4,186	4,553 U

PAGE A-7

UNCLASSIFIED

UNCLASSIFIED

DEPARTMENT OF THE ARMY
FY 1985 R D T & E PROGRAM

EXHIBIT R-1

APPROPRIATION: 2040 A RESEARCH DEVELOPMENT TEST + EVAL, ARMY

DATE: 01 FEB 1984

PROGRAM LINE ELEMENT NO	ITEM NOMENCLATURE	ACT ---	THOUSANDS OF DOLLARS				E
			FY 1983 -----	FY 1984 -----	FY 1985 -----	FY 1986 C -----	
144	64220A ARMY HELICOPTER IMPROVEMENT PROG	4	73,811	52,720	24,502		U
145	64221A SURVEILLANCE SYSTEM	4	12,832				U
146	64222A JVX-JOINT SVCS VERTICAL LIFT A/C DEVEL PROG	4	29,915				U
147	64268A AIRCRAFT COMPONENT IMPROVEMENT PROGRAM	4	6,978	11,920	14,630	20,064	U
148	64306A STINGER	4	20,000		13,898	5,936	U
149	64307A PATRIOT	4	45,443	83,033	61,471	55,709	U
150	64310A HELIBORNE MISSILE-HELLFIRE	4	15,914	475	454	3,392	U
151	64311A PERSHING II	4	111,584	17,684			U
152	64313A GRASS BLADE	4	17,069	22,279	20,725	11,399	U
153	64314A MULTIPLE LAUNCH ROCKET SYSTEM (MLRS)	4	26,089	964	1,851		U
154	64318A DIVISION AIR DEFENSE GUN	4	10,887				U
155	64321A JOINT TACTICAL FUSION PROGRAM	4	25,710	54,549			
156	64323A HIGH TECHNOLOGY LIGHT DIVISION	4	6,100	17,898	58,796	64,440	U
157	64324A JOINT TACTICAL MISSILE SYSTEM (JTACMS)	4		50,160	78,978	119,384	U
158	64601A INFANTRY SUPPORT WEAPONS	4	4,068	4,497	21,563	24,730	U
159	64603A NUCLEAR MUNITIONS	4	26,961	24,306			
160	64609A SMOKE MUNITIONS & MATERIEL	4	2,650	2,045	6,154	8,906	U
161	64612A COUNTERMINE AND BARRIERS	4	2,207	5,244	4,734	6,329	U
162	64616A FIGHTING VEHICLE SYS	4	43,754	26,526	16,858	2,246	U
163	64619A LANDMINE WARFARE	4	10,695	7,060	12,050	15,470	U
164	64620A TANK SYSTEMS	4	5,969				U

PAGE A-8

UNCLASSIFIED

UNCLASSIFIED

DEPARTMENT OF THE ARMY
FY 1985 R D T & E PROGRAM

EXHIBIT R-1

APPROPRIATION: 2040 A RESEARCH DEVELOPMENT TEST + EVAL, ARMY

DATE: 01 FEB 1984

PROGRAM LINE ELEMENT NO	ITEM NOMENCLATURE	ACT	THOUSANDS OF DOLLARS				U
			FY 1983	FY 1984	FY 1985	FY 1986 C	
165	64623A LIGH ANTI-TANK WEAPON TESTING AND EVALUATION 4	4	9,972				U
166	64624A HIGH MOBILITY MULTIPURPOSE WHEELED VEHICLE 4	4	4,678				U
167	64626A FIRE INTEGRATION SPT TEAM VEH 4	4	8,607				U
168	64628A INDIRECT FIRE TRAINING MUNITIONS 4	4	728				589 U
169	64630A M1 E1 DEVELOPMENT PROGRAM 4	4	58,187	66,584	53,682		47,162 U
170	64631A FIELD ARTILLERY AMMUNITION 4	4	100	6,248	31,800		29,853 U
171	64632A 105MM TANK AMMUNITION 4	4	2,062	8,140	10,050		6,116 U
172	64701A COMM ENGINEERING DEV 4	4	12,696	9,442	9,830		15,010 U
173	64702A JT TAC INFO DIST SYS (JTIDS) 4	4	20,715	17,719	21,231		12,775 U
174	64704A UNATTENDED GROUND SENSORS 4	4	4,124	5,000			U
175	64705A MODULAR INTEGRATED COMM AND NAVIGATION SYS 4	4	18,711	9,039	5,937		4,324 U
176	64706A RADIOLOGICAL DEFENSE EQUIPMENT 4	4	838	927	288		U
177	64709A IDENTIFICATION-FRIEND OR FOE EQ 4	4	2,653	3,896	5,058		5,444 U
178	64710A NIGHT VISION DEVICES 4	4	2,683	5,274	10,842		12,920 U
179	64711A AIRCRAFT SURVIVABILITY EQUIPMENT 4	4	19,395	17,979	16,813		26,109 U
180	64712A ARMY CMD AND CONTROL SYSTEM (ACCS) SYS ENGR 4	4	13,175	10,325	11,568		15,874 U
181	64713A COMBAT FEEDING, CLOTHING AND EQUIPMENT 4	4	2,804	2,257	6,290		6,570 U
182	64714A TACTICAL ELECTRIC POWER SOURCES 4	4	5,234	5,520	10,921		12,363 U
183	64717A GENERAL COMBAT SUPPORT 4	4	7,260	9,691	13,965		18,424 U
184	64718A PHYSICAL SECURITY 4	4	6,326	5,893	7,623		7,608 U
185	64722A EDUCATION AND TRAINING 4	4		6,000	7,740		6,745 U

PAGE A-9

UNCLASSIFIED

UNCLASSIFIED

APPROPRIATION: 2040 A RESEARCH DEVELOPMENT TEST + EVAL, ARMY
 DEPARTMENT OF THE ARMY
 FY 1985 R D T & E PROGRAM
 EXHIBIT R-1
 DATE: 01 FEB 1984

PROGRAM LINE ELEMENT NO	ITEM NOMENCLATURE	ACT ---	THOUSANDS OF DOLLARS				S E
			FY 1983	FY 1984	FY 1985	FY 1986 C	
186	64723A SPECIAL PURPOSE DETECTORS	4			3,330	3,172	U
187	64724A CML BIO DETECTION WARNING & TRAINING MATERIAL	4	550	8,238	11,326	12,710	U
188	64725A CHEM BIO PROTECTIVE MATERIEL	4	11,748	19,389	24,431	19,706	U
189	64727A COMMAND AND CONTROL	4	14,526	16,028	14,822	4,898	U
190	64730A REMOTELY PILOTED VEHICLES	4	81,726	132,629	103,140	30,865	U
191	64732A ENHANCE TO SENSORS CORREL RECONN & TARGETING	4	3,200				U
192	64733A MILITARY COMPUTER FAMILY	4			16,522	11,861	U
193	64740A TACTICAL SURVEILLANCE SYSTEM	4	9,456	11,240			
194	64741A DIV AIR DEFENSE COMMAND AND CONTROL	4		38,198	129,424	88,573	U
195	64746A AUTOMATIC TEST EQUIPMENT DEVELOPMENT	4	3,122		15,859	23,203	U
196	64750A TACTICAL ELECTRONIC COUNTERMEASURES SYSTEMS	4	4,347	18,952			
197	64751A SINGLE CHANNEL GRD/ABN RADIO SUB ENG	4		13,417	11,221	12,133	U
198	64753A BATTLEFIELD DATA SYSTEMS	4	23,926				U
199	64757A MEDICAL CHEMICAL DEFENSE LIFE SPT MAT	4		4,669	12,745	23,836	U
200	64758A DRUG AND VACCINE DEVELOPMENT	4		4,669	9,815	9,709	U
201	64766A TACTICAL ELECTRONIC SURVEILLANCE SYS	4	10,903	13,174			
202	64770A JOINT SURVEILLANCE/TARGET ATTACK RADAR SYSTEM	4		67,750	108,168	89,306	U
203	64779A JT INTEROP OF TAC CMD & CONT SYS (JINTACCS)	4	25,997	28,298	51,849	57,340	U

PAGE A-10

UNCLASSIFIED

UNCLASSIFIED

DEPARTMENT OF THE ARMY
FY 1985 R D T & E PROGRAM

EXHIBIT R-1

APPROPRIATION: 2040 A RESEARCH DEVELOPMENT TEST + EVAL, ARMY

DATE: 01 FEB 1984

THOUSANDS OF DOLLARS

LINE ELEMENT NO	PROGRAM ELEMENT NUMBER	ITEM NOMENCLATURE	ACT	FY 1983	FY 1984	FY 1985	FY 1986	C
204	65710A	JT CB CONTACT POINT TEST AND ASSESSMENT	4	1,447	1,769	2,357	2,537	U
205	23724A	HV A TI-TANK ASSAULT WPN SYS (TOW)	4	2,176	1,863	9,921	7,285	U
206	23726A	ADV FIELD ARTY TACTICAL DATA SYS	4	14,958	21,478	33,112	36,245	U
207	23730A	CHAPARRAL	4	24,692	21,041	17,631	18,398	U
208	23731A	SAM HAWK/HAWK IMP PROG	4	36,617	31,954	18,875	5,444	U
209	23735A	COMBAT VEHICLE IMPROVEMENT PROGRAM	4	49,803	74,560	120,067	90,480	U
210	23739A	AN/TSQ-73 MODIFICATIONS	4	1,891				U
211	23740A	MANEUVER CONTROL SYSTEM (MCS)	4	18,205	9,333	25,734	9,549	U
212	23741A	PROD IMPR VULCAN AIR DEF SYS	4	1,500	3,753		21,771	U
213	23743A	155MM SELF-PROPELLED HOWITZER IMPROVEMENTS	4		23,745	27,746	28,320	U
214	23744A	AIRCRAFT MODIFICATIONS	4		3,265			U
215	28010A	JOINT TACTICAL COMM PROGRAM (TRI-TAC)	4	45,357	71,272	45,433	29,052	U
216	33145A	EUCOM C3 SYSTEMS	4	100	3,921	7,539	2,733	U
		TACTICAL PROGRAMS		1,499,672	1,814,104	2,329,995	2,346,054	
217	63712A	MAPPING AND GEODESY	5	3,601	234	2,951	4,902	U
218	64201A	AIRCRAFT AVIONICS	5	4,989	2,244	2,102	3,385	U
219	64716A	MAPPING AND GEODESY	5			4,586	2,879	U
220	64778A	NAVSTAR GLOBAL POS SYS (USER EQ)	5	10,677	5,777	13,578	11,428	U
221	31307A	FOREIGN SCIENCE AND TECHNOLOGY CENTER	5					
222	31327A	TECH RECONNAISSANCE/SURVEILLANCE (TECRAS)	5					
223	31334A	OTHER COMMAND GDIP ACTIVITIES	5		274			U

PAGE A-11

UNCLASSIFIED

UNCLASSIFIED

DEPARTMENT OF THE ARMY
FY 1985 R D T & E PROGRAM

EXHIBIT R-1

APPROPRIATION: 2040 A RESEARCH DEVELOPMENT TEST + EVAL, ARMY

DATE: 01 FEB 1984

PROGRAM LINE ELEMENT NO	ITEM NOMENCLATURE	ACT	FY 1983	FY 1984	FY 1985	FY 1986 C
			THOUSANDS OF DOLLARS			
224	31359A SPECIAL ARMY PROGRAMS	5				
225	33111A STRATEGIC ARMY COMMUNICATIONS (STARCOM)	5	810	903	1,047	1,027 U
226	33126A LONG-HAUL COMMUNICATIONS (DCS)	5	11,471	8,694	9,783	U
227	33142A SATCOM GROUND ENVIRONMENT	5	31,651	46,179	16,055	33,316 U
228	33401A COMMUNICATIONS SECURITY	5	6,256	8,139		
	INTELLIGENCE AND COMMUNICATIONS		75,809	76,913	67,572	75,366
229	63315A TARGET MISSILES	6			985	U
230	63738A NONSYSTEMS TRAINING DEVICES (NSTD) DEV	6	934	2,365	6,100	3,481 U
231	64715A NON-SYSTEM TNG DEVICES ENGR	6	7,690	12,545	34,530	40,081 U
232	64726A METEOROLOGICAL EQUIPMENT SYSTEMS	6	5,847	5,182	9,617	6,220 U
233	65102A TRADOC STUDIES AND ANALYSES	6	1,768		2,864	4,402 U
234	65201A AVIATION ENGINEERING FLIGHT ACTIVITY	6	5,775	6,524	7,608	8,184 U
235	65301A KWAJALEIN MISSILE RANGE	6	151,706	138,342	154,765	154,024 U
236	65502A SML BUSINESS INNOVATIVE RESEARCH	6	2,379			U
237	65702A SUPPORT OF DEVELOPMENT TESTING	6	44,713	43,172	52,060	64,699 U
238	65706A MATERIEL SYSTEMS ANALYSIS	6	13,129	14,221	15,388	16,057 U
239	65709A EXPLOITATION OF FOREIGN ITEMS	6	2,101	2,602	2,902	3,636 U
240	65712A SUPPORT OF OPERATIONAL TESTING	6	52,025	49,126	60,625	77,518 U
241	65801A PROGRAM-WIDE ACTIVITIES	6	67,296	66,695	110,059	198,419 U
242	65802A INTL COOPERATIVE RESEARCH AND DEV	6	734	1,035	794	1,136 U
243	65803A TECHNICAL INFO ACTIVITIES	6	4,710	5,330	5,565	6,395 U

PAGE A-12

UNCLASSIFIED

UNCLASSIFIED

DEPARTMENT OF THE ARMY
FY 1985 R D T & E PROGRAM

EXHIBIT R-1

APPROPRIATION: 2040 A RESEARCH DEVELOPMENT TEST + EVAL, ARMY

DATE: 01 FEB 1984

PROGRAM LINE ELEMENT NO	ITEM NOMENCLATURE	ACT	FY 1983	FY 1984	FY 1985	FY 1986	THOUSANDS OF DOLLARS	U
244	65804A DARCOM MAJOR RANGE/TEST FACIL	6	295,641	304,751	350,988	405,663		U
245	65805A MUNITIONS-NATO STDZN DOD EFFEC SAFETY STDS	6	7,028	5,709	6,785	7,027		U
246	65806A DOD HIGH ENERGY LASER SYSTEMS TEST FAC	6	33,933	36,233	39,399	38,911		U
247	65807A MAINSITE	6	3,000	17,566				U
248	65808A MM AND T/MACI	6	48,767	73,683				U
249	65872A PRODUCTIVITY INVESTMENT FUNDING	6	20,125	20,728	11,310	3,562		U
250	65890A INSTL AUDIOVISUAL SPT (R/D)	6	3,492					U
251	65898A MGT HQ (RESEARCH/DEVELOPMENT)	6	43,431	42,961	41,120	45,425		U
252	78011A INDUSTRIAL PREPAREDNESS	6			103,964	156,917		U
	DEFENSEWIDE MISSION SUPPORT		816,224	848,770	1,017,428	1,241,757		
TOTAL	RESEARCH DEVELOPMENT TEST + EVAL, ARMY		3,895,283	4,259,375	4,987,100	5,355,078		

PAGE A-13

UNCLASSIFIED

NAVY

UNCLASSIFIED

DEPARTMENT OF THE NAVY
FY 1985 R D T & E PROGRAM

EXHIBIT R-1

SUMMARY

DATE: 01 FEB 1984

THOUSANDS OF DOLLARS

SUMMARY RECAP OF RESEARCH CATEGORIES

	FY 1983	FY 1984	FY 1985	FY 1986
RESEARCH	307,640	319,358	349,721	404,081
EXPLORATORY DEVELOPMENT	525,514	441,121	478,451	536,036
ADVANCED DEVELOPMENT	1,745,476	2,917,737	2,126,370	3,111,047
ENGINEERING DEVELOPMENT	2,086,004	2,271,521	4,684,522	4,912,499
MANAGEMENT AND SUPPORT	586,089	568,466	603,564	664,133
RESEARCH AND DEVELOPMENT (FYDP PROGRAM 6)	5,250,723	6,518,203	8,242,628	9,627,796
OPERATIONAL SYSTEMS DEVELOPMENT	849,408	1,053,515	1,583,448	2,048,323
TOTAL RESEARCH DEVELOPMENT TEST + EVAL, NAVY	6,100,131	7,571,718	9,826,076	11,676,119

SUMMARY RECAP OF BUDGET ACTIVITIES

	FY 1983	FY 1984	FY 1985	FY 1986
TECHNOLOGY BASE	833,154	760,479	828,172	940,117
ADVANCED TECHNOLOGY DEVELOPMENT	149,779	175,760	286,399	364,309
STRATEGIC PROGRAMS	630,425	1,767,154	2,380,055	2,602,954
TACTICAL PROGRAMS	3,614,319	3,891,400	5,223,531	6,548,049
INTELLIGENCE AND COMMUNICATIONS	266,835	337,324	421,535	408,919
DEFENSEWIDE MISSION SUPPORT	605,619	639,601	686,384	811,771
TOTAL RESEARCH DEVELOPMENT TEST + EVAL, NAVY	6,100,131	7,571,718	9,826,076	11,676,119

SUMMARY RECAP OF FYDP PROGRAMS

	FY 1983	FY 1984	FY 1985	FY 1986
STRATEGIC FORCES	247,767	276,231	263,900	309,743
GENERAL PURPOSE FORCES	424,636	556,779	930,801	1,248,760
INTELLIGENCE AND COMMUNICATIONS	173,666	220,505	320,248	389,671
RESEARCH AND DEVELOPMENT (FYDP PROGRAM 6)	5,250,723	6,518,203	8,242,628	9,627,796
CENTRAL SUPPLY AND MAINTENANCE	3,339	---	68,499	100,149
TOTAL RESEARCH DEVELOPMENT TEST + EVAL, NAVY	6,100,131	7,571,718	9,826,076	11,676,119

UNCLASSIFIED

UNCLASSIFIED

DEPARTMENT OF THE NAVY
FY 1985 R D T & E PROGRAM

EXHIBIT R-1

APPROPRIATION: 1319 N RESEARCH DEVELOPMENT TEST + EVAL, NAVY

DATE: 01 FEB 1984

PROGRAM LINE ELEMENT NO	ITEM NOMENCLATURE	ACT	THOUSANDS OF DOLLARS					E
			FY 1983	FY 1984	FY 1985	FY 1986		
1	61152N IN-HOUSE INDEPEND LAB RES	1	23,306	23,444	25,673	29,664	U	
2	61153N DEFENSE RESEARCH SCIENCES	1	284,334	295,914	324,048	374,417	U	
3	62101N TACT DIRECTED ENERGY TECH	1			10,431	12,110	U	
4	62241N AIRCRAFT TECHNOLOGY	1	27,362	25,630	25,705	27,947	U	
5	62331N MISSILE PROPULSION TECH	1	9,314	9,448	10,360	11,497	U	
6	62332N SURF/AEROSPACE WPNRY TECH	1	26,996	26,748	29,960	31,735	U	
7	62542N NUCLEAR PROPULSION TECH	1	53,624	46,128	48,263	49,926	U	
8	62543N SHIP AND SUBMARINE TECH	1	32,497	29,982	30,155	31,769	U	
9	62633N UNDERSEA WARFARE WPNRY TECH	1	25,396	25,086	35,483	40,487	U	
10	62711N U/S TARGET SURV TECH	1	41,766	37,362	45,690	48,965	U	
11	62712N SURF/AEROSP TGT SURV TECH	1	35,784	34,985	36,387	44,151	U	
12	62721N COMMAND AND CONTROL TECH	1	31,048	29,646	30,878	38,505	U	
13	62734N COUNTERMEASURES TECH	1	27,745	27,696	30,829	34,503	U	
14	62735N HIGH ENERGY LASER TECH	1	60,976				U	
15	62757N HUMAN FACTORS&SIM TECH	1	8,877	7,309	7,967	8,722	U	
16	62758N BIOMEDICAL TECH	1	8,871	8,242	8,829	9,437	U	
17	62759N OCEAN AND ATMOS SUPT TECH	1	21,211	18,777	24,046	25,838	U	
18	62760N LOGISTICS TECH	1	13,690	13,533	14,756	18,126	U	
19	62761N MATERIALS TECH	1	33,384	35,253	35,960	41,399	U	
20	62762N ELEX DEVICE TECH	1	25,882	25,309	28,005	30,816	U	
21	62763N PERSONNEL & TRNG TECH	1	6,749	5,684	6,456	6,870	U	

PAGE N-1-12

UNCLASSIFIED

UNCLASSIFIED

DEPARTMENT OF THE NAVY
FY 1985 R D T & E PROGRAM

EXHIBIT R-1

APPROPRIATION: 1319 N RESEARCH DEVELOPMENT TEST + EVAL, NAVY

DATE: 01 FEB 1984

THOUSANDS OF DOLLARS

PROGRAM LINE ELEMENT NO	ITEM NOMENCLATURE	ACT	FY 1983	FY 1984	FY 1985	FY 1986	U
22	62764N CHEM/BIOLOGICAL DEF TECH	1	1,829	3,828	4,939	6,644	U
23	62765N ENERGY & ENVIRON PROT TECH	1	5,005	4,043			U
24	62766N LAB INDEP EXPLORATORY DEV	1	14,009	11,849	13,352	16,589	U
25	62768N DIRECTED ENERGY TECH	1	13,499	14,583			U
	TECHNOLOGY BASE		833,154	760,479	828,172	940,117	
26	63202N AVIONICS	2	4,141	1,607			U
27	63207N ENVIRONMENTAL APPLICATIONS	2	5,516	5,548	8,287	9,172	U
28	63210N ADV A/C PROPUL SYS	2	9,736	5,959	9,040	8,949	U
29	63216N ABN-LIFE SUPPORT SYS	2	2,813	610	1,125	1,920	U
30	63217N ADV A/C SUBSYSTEMS	2	2,405	2,799	6,780	3,725	U
31	63251N A/C SYSTEMS (ADV)	2	1,000				U
32	63303N ERASE SYS TECHNOLOGY	2	9,689	25,307	4,498	4,990	U
33	63306N ADV A/L ASM SYSTEMS	2		1,475			U
34	63308N A/A MSL TECH DEMO	2	2,923	3,956	2,850		U
35	63508N SHIP PROP SYS (ADV)	2	20,656	40,721	47,703	63,062	U
36	63526N ADV COMPUTER TECH	2	3,572	4,912	11,188	10,547	U
37	63573N ELECTRIC DRIVE	2	7,267	10,081	10,072	19,618	U
38	63609N CONVENTIONAL MUNITIONS	2	4,331	4,173	14,323	20,813	U
39	63654N JOINT SERV EOD DEV (ADV)	2	4,954	4,394	7,979	7,603	U
40	63701N HUMAN FACTORS ENG DEVEL	2	2,348	1,170	1,844	2,881	U
41	63704N OCEANOGRAPHIC INSTRUMENTATION DEV	2	2,999	2,950	5,867	8,671	U

PAGE N-2

UNCLASSIFIED

UNCLASSIFIED

DEPARTMENT OF THE NAVY
FY 1985 R D T & E PROGRAM

EXHIBIT R-1

APPROPRIATION: 1319 N RESEARCH DEVELOPMENT TEST + EVAL, NAVY

DATE: 01 FEB 1984

PROGRAM LINE ELEMENT NO	ITEM NOMENCLATURE	ACT	FY 1983	FY 1984	FY 1985	FY 1986	THOUSANDS OF DOLLARS
42	63706N MEDICAL DEVELOPMENT (ADV)	2	8,655	9,698	12,785	13,103	U
43	63707N MNPWR CONTROL SYST DEV	2	2,375	1,771	5,020	5,247	U
44	63709N ADV MARINE BIOLOGICAL SYS	2	3,980	3,893	5,186	6,848	U
45	63713N OCEAN ENG TECH DEVELOP	2	13,743	16,376	18,876	22,367	U
46	63720N EDUCATION & TRAINING	2	2,698	2,196	5,008	6,114	U
47	63721N ENVIRONMENTAL PROTECTION	2	8,150	7,999	10,517	10,042	U
48	63722N NAVAL SPECIAL WARFARE	2	10,199	7,928	9,224	13,368	U
49	63727N ADV TECH FOR LOGISTIC INFO	2	1,253	1,669	7,950	11,787	U
50	63728N MANUFACTURING TECH	2					U
51	63732M ADV MANPOWER TRAINING SYS	2	1,977	2,136	2,988	3,259	U
52	63733N TRAINING DEVICE TECH	2	6,100	6,432	8,790	9,874	U
53	63786N ABN ELE-MAG/OPT SYS (ADV)	2	2,960				U
54	78011N MANUFACTURING TECH	2	3,339		68,499	100,149	U
	ADVANCED TECHNOLOGY DEVELOPMENT		149,779	175,760	286,399	364,309	
55	63371N TRIDENT II	3	369,614	1,473,233			U
56	63735N WWMCCS ARCHITECTURE SUPPT	3	900	1,141			U
57	64363N TRIDENT II	3			2,091,113	2,250,542	U
58	65856N STRATEGIC TECH SUPPORT	3	7,149	6,786	8,708	8,520	U
59	11221N FBM SYSTEM	3	30,577	27,750	40,391	41,379	U
60	11224N SSBN SECURITY PROGRAM	3	34,191	36,671	48,862	51,914	U
61	11228N TRIDENT I	3	66,057	71,199	41,199	73,696	U

PAGE N-3

UNCLASSIFIED

UNCLASSIFIED

DEPARTMENT OF THE NAVY
FY 1985 R D T & E PROGRAM

EXHIBIT R-1

APPROPRIATION: 1319 N RESEARCH DEVELOPMENT TEST + EVAL, NAVY

DATE: 01 FEB 1984

THOUSANDS OF DOLLARS

PROGRAM LINE ELEMENT NO	ITEM NOMENCLATURE	ACT	FY 1983	FY 1984	FY 1985	FY 1986	C
62	11401N ELF COMMUNICATIONS	3	51,677	57,292	26,396	10,087	U
63	11402N NAVY STRATEGIC COMM	3	64,754	83,143	106,535	132,200	U
64	12427N NAV SPASUR	3	511	176	517	467	U
65	33131N MEECN	3	4,995	1,509	1,467	1,661	U
66	33152N WIS MODERNIZATION	3		8,254	14,867	32,488	U
	STRATEGIC PROGRAMS		630,425	1,767,154	2,380,055	2,602,954	
67	63206N ABN ELECTRONIC WARFARE EQ	4	14,157	21,753	67,335	81,645	U
68	63208N VTX-TS	4	7,925	24,857	113,420	263,747	U
69	63209N U/W WPNS ACCEPT TEST	4				5,946	U
70	63212N TAC AIR IR COUNTERMEASURES	4	1,493				U
71	63213N AIRBORNE INFRARED CM	4	5,732	10,819			U
72	63214N TAC CMD CONT COMM C/M	4	7,258	10,093			U
73	63219N ADV A/C ARMAMENT SYS	4	3,145	430			U
74	63228N CV ASW MODULE	4	3,928	3,832	5,289	5,538	U
75	63254N AIR ASW	4	13,439	2,362	2,384	3,499	U
76	63256N J VX	4		86,673	198,495	618,610	U
77	63257N A-6E IMPROV	4	6,700	14,370	19,633		U
78	63259N ACOS SEARCH SENSORS (ADV)	4	7,601	1,900	1,922	5,217	U
79	63260N ABN MINE COUNTERMEASURES	4	21,566	14,752	15,726	17,250	U
80	63261N TAC AIR RECON	4	4,670	7,273	13,277	29,472	U
81	63262N A/C SURVIV & VULNER	4	9,984	10,867	29,493	33,573	U

PAGE N-4

UNCLASSIFIED

UNCLASSIFIED

DEPARTMENT OF THE NAVY
FY 1985 R D T & E PROGRAM

EXHIBIT R-1

APPROPRIATION: 1319 N RESEARCH DEVELOPMENT TEST + EVAL, NAVY

DATE: 01 FEB 1984

PROGRAM LINE ELEMENT NO	ITEM NOMENCLATURE	ACT	FY 1983	FY 1984	FY 1985	FY 1986	THOUSANDS OF DOLLARS
82	63267N COMBAT IDENT SYS	4	6,694	6,857			U
83	63313N IIR MAVERICK	4	4,500	4,938	1,979		U
84	63315N RETRACT YELLOW	4	3,999	7,850	12,465	26,205	U
85	63318N ADV SURF/AIR MISSILE(ASAM)	4	14,169	3,924	9,040	25,000	U
86	63367N SUBMARINE ASW STDOFF WPN	4	22,517	27,381	61,659	134,650	U
87	63369N AIR-L TOMAHAWK	4	19,900				U
88	63382N BGAAC	4	6,458	6,336	12,991	15,820	U
89	63501N REACTOR PROPULSION PLANTS	4	5,783				U
90	63502N SURFACE MCM	4	31,370	27,132	30,276	32,688	U
91	63503N ACOUSTIC COMM (ADV)	4	1,394				U
92	63504N SUB SONAR DEVEL (ADV)	4	12,426	8,117	31,252	82,486	U
93	63506N SURFACE SHIP TORP DEF	4	2,428	7,798	27,887	28,200	U
94	63509N SHPBD INFO TRANSFER SYS	4	4,411	2,276	4,410	5,943	U
95	63512N CATAPULTS	4		874		3,035	U
96	63513N SHPBD SYS COMP DEV	4	15,442	12,465	15,486	28,160	U
97	63514N SHIPBOARD DAMAGE CONTROL	4	24,251	14,000	20,419	36,976	U
98	63515N ADV IDENTIFICATION TECH	4	1,472	590			U
99	63516N RADAR SURVEILLANCE EQUIP	4		486	2,969	6,923	U
100	63519N ADV COMMAND DATA SYS	4	4,387	2,496	6,014	6,124	U
101	63522N ADV SUB SUPT EQUIP PROG	4	632	2,253	12,375	14,546	U
102	63525N PILOT FISH	4	93,823	95,495	119,231	106,339	U

PAGE N-5

UNCLASSIFIED

UNCLASSIFIED

DEPARTMENT OF THE NAVY
FY 1985 R D T & E PROGRAM

EXHIBIT R-1

APPROPRIATION: 1319 N RESEARCH DEVELOPMENT TEST + EVAL, NAVY

DATE: 01 FEB 1984

PROGRAM LINE ELEMENT NO	ITEM NOMENCLATURE	ACT	THOUSANDS OF DOLLARS				S E C
			FY 1983	FY 1984	FY 1985	FY 1986	
103	63528N NON ACOUSTIC ASW	4	11,028	12,394	22,408	27,892	U
104	63529N ADV ASW TARGET	4	3,907	1,938	16,011	12,425	U
105	63532N SHIP SYS ENGR STDS	4	4,993	4,429	4,834	6,524	U
106	63536N RETRACT JUNIPER	4			1,373		U
107	63537N RETRACT SILVER	4	94,365				U
108	63539N RETRACT AMBER	4	13,522	3,746			U
109	63542N RADIOLOGICAL CONTROL	4			1,674	3,660	U
110	63550N LINK DOGWOOD	4	1,999	5,887	22,753	23,733	U
111	63553N SURFACE ASW	4		6,434	20,863	25,181	U
112	63560N WIDE APERTURE ARRAY (ADV)	4	23,560	15,522	11,671	11,954	U
113	63561N SUBMARINES (ADV)	4	43,850	81,271	153,790	166,500	U
114	63562N SUB TAC W/F SYS (ADV)	4	7,012	11,105	21,736	23,573	U
115	63564N SHIP DEVELOPMENT (ADV)	4	12,865	14,908	16,103	20,040	U
116	63565N SURF SHIP NAVIG SYS	4			2,959	7,912	U
117	63566N AMPHIB ASSLT CRAFT	4	11,884	7,806	4,571	4,558	U
118	63569N ATTACK SUBMARINE DEV	4	8,256	6,835	24,121	40,900	U
119	63570N ADV NUC REACT COMP SYS DEV	4	11,536	26,492	71,424	97,401	U
120	63571N SHIBD PHYSICAL SECURITY	4	6,122	5,235	5,138	5,416	U
121	63576N CHALK EAGLE	4	6,401	14,259	51,912	70,057	U
122	63578N A4W/A1G NUC PROP PLNT	4	12,238	12,193	5,755	5,889	U
123	63579N D2W NUC PROP REACTOR	4	9,337				U

UNCLASSIFIED

PAGE N-6

UNCLASSIFIED

DEPARTMENT OF THE NAVY
FY 1985 R D T & E PROGRAM

EXHIBIT R-1

APPROPRIATION: 1319 N RESEARCH DEVELOPMENT TEST + EVAL, NAVY

DATE: 01 FEB 1984

PROGRAM LINE ELEMENT NO	ITEM NOMENCLATURE	ACT	THOUSANDS OF DOLLARS					S E C
			FY 1983	FY 1984	FY 1985	FY 1986	C	
124	63582N COMBAT SYSTEM INTEGRATION	4	7,920	14,844	21,635	26,786	U	
125	63589N DDG-51	4	138,339	108,608	124,585	129,746	U	
126	63591N JOINT ADV SYS	4		111,853	137,009	162,269	U	
127	63601N MINE DEVELOPMENT	4	9,521	3,924			U	
128	63610N ALWT (ADV)	4	97,098	4,050			U	
129	63611M MC ASSAULT VEHICLES	4	38,076	61,165	54,553	49,414	U	
130	63634N TAC NUC DEVELOPMENT	4	3,440	5,314	7,846	10,927	U	
131	63635M GRD COMBAT/SUPP ARMS SYS	4	4,508	4,957	5,181	8,559	U	
132	63691N MK 48 ADCAP (ADV)	4	20,483				U	
133	63702N OCEAN ENGR SYS DEV	4	1,864	2,153	2,296	2,020	U	
134	63705N LOGISTICS	4	3,335	1,188	937	568	U	
135	63708N ANTI SUB W/F SIGN PROC	4	6,765	3,856	9,381	10,285	U	
136	63711N FLEET TAC D&E PROGRAM	4	5,201	5,160	6,195	10,275	U	
137	63717N COMMAND & CONTROL SYS(ADV)	4	34,903	26,578	27,384	31,833	U	
138	63719N CONT OFFLOAD & TRNSFR SYS	4	3,667	1,744	1,522	3,958	U	
139	63724N NAVY ENERGY PROGRAM (ADV)	4	21,634	23,121	20,075	23,264	U	
140	63725N FACILITIES IMPROV	4	4,913	4,833	10,477	10,284	U	
141	63726N MERSHIP NAV AUX PROG	4	8,173	4,716	5,927	6,821	U	
142	63729M COMBAT SERVICES SUP (ADV)	4	5,436	6,320	4,678	9,204	U	
143	63730M INTELL/ELEC WARFARE SYS	4	5,062	4,867	8,231	347	U	
144	63731M COMMAND/CONT/COMM SYS	4	1,394				U	

PAGE N-7

UNCLASSIFIED

UNCLASSIFIED

DEPARTMENT OF THE NAVY
FY 1985 R D T & E PROGRAM

EXHIBIT R-1

APPROPRIATION: 1319 N RESEARCH DEVELOPMENT TEST + EVAL, NAVY

DATE: 01 FEB 1984

PROGRAM LINE ELEMENT NO	ITEM NOMENCLATURE	ACT	FY 1983	FY 1984	FY 1985	FY 1986	THOUSANDS OF DOLLARS
145	63734N CHALK CORAL	4	2,900	6,683	5,440	195	U
146	63736N STRIKE WARFARE	4	3,000	1,298	594		U
147	63737N LINK HAZEL	4	16,000	34,387	43,000	15,000	U
148	63763N ITSS	4	11,334	11,803	15,208	57,586	U
149	63784N ASW SURVEILLANCE	4	819		9,247	22,516	U
150	63785N LRAP	4	13,578	8,262	10,576	16,591	U
151	63787N SPECIAL PROCESSES	4	72,523	65,953	69,519	52,722	U
152	63788N RDSS	4	19,131	18,197	11,766	13,817	U
153	64203N AVIONICS DEV	4	6,491	7,754	15,033	18,222	U
154	64211N IFF SYS DEV	4	6,228	8,435	15,213	20,009	U
155	64212N LAMPS III	4	8,969	2,102		7,587	U
156	64213N HELICOPTER DEVELOPMENT	4	12,624	32,296	16,518	7,202	U
157	64214N AV8B (ENG)	4	117,805	101,883	70,447	38,545	U
158	64215N SUPPORT EQUIPMENT	4	7,329	8,730	21,206	24,946	U
159	64217N S-3 WPN SYS IMP S 3()	4	75,999	59,054	42,102	16,685	U
160	64218N ENVIRONMENTAL SYSTEMS	4	1,246	585	2,498	1,790	U
161	64219N ABN ASW DEVELOPMENTS	4	27,536	18,882	24,346	30,513	U
162	64220N A/C IR SIGN SUPPRESSION	4	95	1,391	9,290	5,022	U
163	64221N P-3 MODERNIZATION PROG	4	18,584	9,171	37,388	37,708	U
164	64224N ABN EW ENG	4	1,900	3,836	49,442	56,692	U
165	64225N ADV RADAR WARNING	4	866	7,588			U

PAGE N-8

UNCLASSIFIED

UNCLASSIFIED

DEPARTMENT OF THE NAVY
FY 1985 R D T & E PROGRAM

EXHIBIT R-1

APPROPRIATION: 1319 N RESEARCH DEVELOPMENT TEST + EVAL, NAVY

DATE: 01 FEB 1984

PROGRAM LINE ELEMENT NO	ITEM NOMENCLATURE	ACT	THOUSANDS OF DOLLARS				E C
			FY 1983	FY 1984	FY 1985	FY 1986	
166	64226N ASPJ	4	31,216	42,798	40,560	17,523	U
167	64228N SH 60 CV VARIANT	4		18,373			U
168	64229N CV ASW HELD	4			44,516	5,835	U
169	64252N A/C PROPULSION (ENG)	4		9,248	35,822	46,199	U
170	64255N AIR ELECTRONIC W/F	4	12,689	16,738			U
171	64260N C/MH-53E	4	15,119	32,279	14,560	3,939	U
172	64261N ACOUSTIC SRCH SENSRS (ENG)	4	8,678	22,476	31,240	34,596	U
173	64262N J VX	4	4,900				U
174	64263N F/A-18	4	107,817				U
175	64264N LIFE SUPPORT EQUIP	4	6,702	5,687	13,872	3,266	U
176	64266N ADV SIG PROCESS (ASP)	4	501				U
177	64267N AWG-9 UPDATE	4	6,885	2,981	7,926	7,900	U
178	64268N A/C ENGINES COMP IMP PROG	4	81,139	88,835	90,011	99,111	U
179	64301N MK92 FCS UPGRADE	4	24,628	70,446	19,295	38,358	U
180	64303N AEGIS AREA AIR DEF	4	8,149	12,308	14,154	14,197	U
181	64304N CSED	4	11,215				U
182	64307N CG-47 PRODUCT IMPROVEMENT	4	40,672	54,660	55,593	70,251	U
183	64308N LINK ASH	4		7,729	19,729	10,889	U
184	64314N AMRAAM	4	4,676	6,623	35,685	30,029	U
185	64352N S/L WPNRY SHIP SYSTEMS	4	3,037	1,384	1,395	1,435	U
186	64353N VERTICAL LAUNCHING SYS	4	57,178	44,899	43,850	32,469	U

PAGE N-9

UNCLASSIFIED

UNCLASSIFIED

DEPARTMENT OF THE NAVY
FY 1985 R D T & E PROGRAM

EXHIBIT R-1

APPROPRIATION: 1319 N RESEARCH DEVELOPMENT TEST + EVAL, NAVY

DATE: 01 FEB 1984

LINE ELEMENT NO	PROGRAM ELEMENT NUMBER	ITEM NOMENCLATURE	ACT	THOUSANDS OF DOLLARS				E C
				FY 1983	FY 1984	FY 1985	FY 1986	
187	64354N	AAM SYSTEMS ENGINEERING	4	22,844	2,771	3,888	30,465	U
188	64355N	VLS ASROC	4		29,845	26,603	27,106	U
189	64358N	CIWS (PHALANX)	4	1,346	1,228	3,174	4,771	U
190	64360N	HARM	4	5,713				U
191	64361N	NATO SEA SPARROW	4	1,067	6,146	8,398	8,304	U
192	64365N	SM-2 (N)	4	18,808	18,489	25,679	26,499	U
193	64366N	STANDARD MSL IMPROVEMENTS	4	51,239	31,393	41,282	77,884	U
194	64367N	TOMAHAWK	4	109,039	128,844	81,501	43,821	U
195	64369N	5" ROLLING AIR FRAME MSLE	4	16,153	4,230	6,544	2,233	U
196	64370N	SSN-688 VLS	4	47,061	39,176	29,449	23,256	U
197	64371N	HELLFIRE	4	9,365	2,706	2,401		U
198	64372N	NEW THREAT UPGRADE	4	45,759	47,503	51,783	66,931	U
199	64502N	SUBMARINE COMM	4	3,635	4,801	4,185	4,706	U
200	64503N	SUB SONAR DEVELOP (ENG)	4	40,003	51,792	40,111	46,335	U
201	64504N	AIR CONTROL ENG	4	9,223	24,777	23,032	17,264	U
202	64506N	BR/CW COUNTERMEASURES	4	9,657	8,028	7,119	6,792	U
203	64507N	EMSP	4	12,972	22,769	58,614	110,516	U
204	64508N	RADAR SURVEILLANCE EQUIP	4	12,839	10,242	11,714	12,826	U
205	64510N	COMMUNICATIONS SYS	4	3,767	4,473	7,991	730	U
206	64511N	INTELLIGENCE SYSTEMS	4	1,868	2,122	2,573	3,911	U
207	64515N	SUB SUPT EQUIP PROG (ENG)	4	2,232	3,690	7,397	13,747	U

PAGE N-10

UNCLASSIFIED

UNCLASSIFIED

DEPARTMENT OF THE NAVY
FY 1985 R D T & E PROGRAM

EXHIBIT R-1

APPROPRIATION: 1319 N RESEARCH DEVELOPMENT TEST + EVAL, NAVY

DATE: 01 FEB 1984

PROGRAM LINE ELEMENT NO	ITEM NOMENCLATURE	ACT	FY 1983	FY 1984	FY 1985	FY 1986	E
208	64516N SHIP SURVIVABILITY	4	2,117	4,299	6,288	9,527	U
209	64518N CIC CONVERSION	4	18,592	24,439	30,541	32,472	U
210	64520N WIDE APERTURE ARRAY (ENG)	4			14,664	27,064	U
211	64524N SUBACS (ENG)	4	80,714	95,803	171,216	215,125	U
212	64554N SURFACE E/W	4	6,339	6,141	8,055	12,773	U
213	64561N SUBMARINE (ENG)	4	500	1,921			U
214	64562N SUB TAC W/F SYSTS (ENG)	4	34,425	46,944	41,894	46,141	U
215	64563N SHPBD PHYS SECURITY (ENG)	4		2,436	2,349	2,205	U
216	64566N ACOUSTIC COMM (ENG)	4	2,567				U
217	64567N SHIP SUBSYS DEV/LBTS	4	120,887	78,064	101,275	118,582	U
218	64569N NATO SEA GNAT	4	6,389	3,924	3,733	2,418	U
219	64573N SHPBD EW IMPROV	4	15,019	12,386	49,819	61,203	U
220	64574N TACT EMBEDDED COMP PROG	4	31,704	18,644	9,498	9,692	U
221	64575N AN/SQS-53C	4	57,575	47,944	50,893	44,041	U
222	64576N INFLUENCE MCM	4	1,916				U
223	64578N LINK BIRCH	4	1,200	5,169	7,522	4,154	U
224	64601N MINE DEVEL (ENG)	4	12,697	12,433	18,841	19,490	U
225	64602N NAVAL GUNNERY IMPROVEMENT	4	739	6,409	4,643	11,764	U
226	64603N UNGUIDED CONVENT A/L WPNS	4	7,229	16,214	8,207	7,254	U
227	64604N C/W WEAPONS	4	9,500	7,969	2,134		U
228	64608N SAL GP/EO SENS DEVEL	4	16,120	33,651	45,511	40,572	U

PAGE N-11

UNCLASSIFIED

UNCLASSIFIED

DEPARTMENT OF THE NAVY
FY 1985 R D T & E PROGRAM

EXHIBIT R-1

APPROPRIATION: 1319 N RESEARCH DEVELOPMENT TEST + EVAL, NAVY

DATE: 01 FEB 1984

PROGRAM LINE ELEMENT NO	ITEM NOMENCLATURE	ACT	THOUSANDS OF DOLLARS				E
			FY 1983	FY 1984	FY 1985	FY 1986	
229	64609N BOMB FUZE IMPROV	4	2,683	305	6,852	6,295	U
230	64610N ALWT (ENG)	4	18,000	139,251	147,316	163,243	U
231	64652N GUN FCS IMP. PROG	4	9,519				U
232	64654N JOINT SERV EOD DEV (ENG)	4	2,926	3,174	4,034	4,174	U
233	64656M MC ASSAULT VEHICLES	4			11,935	58,738	U
234	64657M GRD COMBAT/SUP ARMS SYS	4	11,969	13,389	3,553	9,710	U
235	64675N MK 48 ADCAP (ENG)	4	159,884	180,940	127,551	64,427	U
236	64704N OCEANOGRAPH INSTRUMENT SPT	4				1,770	U
237	64705N CHALK BANYAM	4		4,000	10,657	5,934	U
238	64710N NAVY ENERGY PROGRAM (ENG)	4	15,574	22,178	11,180	12,517	U
239	64711N COMMAND & CONTROL SYS(ENG)	4	13,697	19,484	53,558	71,108	U
240	64713N TACTAS (AN-SGR-19)	4	9,773	3,589			U
241	64714N AIR W/F TRAINING DEV	4	17,000	11,585	3,125		U
242	64715N SURFACE W/F TRAINING DEV	4	31,567	24,564	31,834	41,984	U
243	64716N SUBMARINE W/F TRAINING DEV	4		577	486		U
244	64717M COMBAT SERVICES SUPP	4	3,356	3,795	3,361	4,066	U
245	64718M INTELL/ELECT W/F SYS	4	1,333	4,411	5,647	15,260	U
246	64719M COMMAND/CONT/COMM SYS	4	31,770	19,663	32,771	18,226	U
247	64720M TAC AIR OPER CENTRAL 85	4	10,150	4,774	6,056		U
248	64725N REGIONAL TACTICAL SURV	4	1,700	28,376	63,666	24,324	U
249	64761N INTELLIGENCE (ENG)	4	14,292	9,786	9,891	9,455	U

PAGE N-12

UNCLASSIFIED

UNCLASSIFIED

DEPARTMENT OF THE NAVY
FY 1985 R D T & E PROGRAM

EXHIBIT R-1

APPROPRIATION: 1319 N RESEARCH DEVELOPMENT TEST + EVAL, NAVY

DATE: 01 FEB 1984

THOUSANDS OF DOLLARS

PROGRAM LINE ELEMENT NO	ITEM NOMENCLATURE	ACT	FY 1983	FY 1984	FY 1985	FY 1986 C	E
250	64771N MEDICAL DEV (ENG)	4	2,314	1,889	2,471	2,506	U
251	64779N JINTACCS	4	6,414	7,832	16,263	21,436	U
252	64780M JINTACCS MC	4	1,817	6,459	5,229	1,668	U
253	64789N SURV TOWED ARRAY SENSOR	4				3,168	U
254	65155N FLT TACT D&E	4	17,666	17,218	16,353	19,244	U
255	65803N ELECTROMAG SPECTRUM MNGMT	4	3,881	5,297	4,118	2,297	U
256	65853N MANAG & TECH SUPPORT	4	10,684	11,019	9,584	12,392	U
257	65867N C2 SURV/RECONN SPT	4	1,968	4,144	4,815	5,118	U
258	65871M MC TAC EXPLOIT NAT CAP	4	508	399	427	543	U
259	24134N A6 SQUADRONS	4	4,725	8,515	17,942	12,196	U
260	24136N F/A-18 SQUADRONS	4		16,721	19,798	54,688	U
261	24152N EARLY WARNING ACFT SQDNS	4	52,105	53,328	39,149	25,644	U
262	24161N AVIATION SUPPORT CVW	4	3,108	6,914	3,021	1,928	U
263	24163N FLT TELECOM (TAC)	4	23,087	32,747	75,346	80,361	U
264	24226N PATROL COMBATANTS	4	500			495	U
265	24281N SUBMARINES	4	6,432	7,300	5,443	3,956	U
266	24304N MINES & MINE SUPPORT	4	1,481	894			U
267	24311N UNDERSEAS SURVEILLANCE SYS	4	49,975	48,111	29,725	32,537	U
268	24313N SURTASS	4	6,985	478	5,751	7,287	U
269	24571N SPECIAL PROJECTS	4	7,142	15,137	14,886	14,449	U
270	24573N NAVY COVER & DECEPT PROG	4	14,315	16,249	24,923	23,651	U

PAGE N-13

UNCLASSIFIED

UNCLASSIFIED

DEPARTMENT OF THE NAVY
FY 1985 R D T & E PROGRAM

EXHIBIT R-1

APPROPRIATION: 1319 N RESEARCH DEVELOPMENT TEST + EVAL, NAVY

DATE: 01 FEB 1984

PROGRAM LINE ELEMENT NO	ITEM NOMENCLATURE	ACT	THOUSANDS OF DOLLARS				FY 1986 C
			FY 1983	FY 1984	FY 1985	FY 1986 U	
271	24575N ELECTRONIC WARFARE SPT	4	8,169	8,164	14,254	19,028	U
272	24576N COUNTER C3 DEV	4	9,530	11,201	30,189	27,691	U
273	25601N HARM IMPROVEMENT	4		8,497	19,569	21,667	U
274	25604N JTIDS	4	91,170	109,627	141,699	150,327	U
275	25620N ASW COMBAT SYS INTEG	4	15,993	15,096	12,247	13,360	U
276	25623N SURF SHP SONAR MODRNIZATN	4	5,976	3,359			U
277	25624N AN/SQR-18 TACTAS	4	4,890				U
278	25633N ACFT EQ REL/MAINT PROG	4	7,617	6,727	8,455	8,860	U
279	25634N SUBMARINE SILENCING	4	10,583	11,863	31,657	35,436	U
280	25645N MODULR GLIDE WPN IMPR PROG	4	2,030	3,746			U
281	25658N LAB FLEET SUPPORT	4	4,669	5,682	6,414	7,174	U
282	25662N A/C PROPULSION EVAL GEN	4	2,835	3,055			U
283	25663N A/C FLIGHT TEST GENERAL	4	1,134				U
284	25667N F-14 A	4	14,723	41,984	293,975	542,586	U
285	25670N TACTICAL INTELL PROC SUP	4	1,942	1,910	2,037	2,078	U
286	25674N EW COUNTER RESPONSE	4	12,653	23,394	44,111	58,278	U
287	25675N OPERATIONAL REACTOR DEV	4	2,855	17,789	12,861	12,955	U
288	26313M MARINE CORPS TELECOM	4	2,121	5,014	5,191	4,718	U
289	26623M GRD COMBAT/SUP ARMS SYS	4	7,088	21,894	19,663	22,402	U
290	26624M COMBAT SERVICES SUP	4	883	1,382	2,253	2,291	U
291	26625M INTELL/ELECT WARFARE SYS	4	777	583	576	1,170	U

PAGE N-14

UNCLASSIFIED

UNCLASSIFIED

DEPARTMENT OF THE NAVY
FY 1985 R D T & E PROGRAM

EXHIBIT R-1

APPROPRIATION: 1319 N RESEARCH DEVELOPMENT TEST + EVAL, NAVY

DATE: 01 FEB 1984

PROGRAM LINE ELEMENT NO	ITEM NOMENCLATURE	ACT	THOUSANDS OF DOLLARS				
			FY 1983	FY 1984	FY 1985	FY 1986 C	E
292	26626M COMMAND/CONT/COMM SYS	4	18,029	21,053	25,313	42,756 U	
293	26627M M/C TECH SUPT C/C SYS	4	2,010	2,888	3,077	4,170 U	
294	28010M TRI- AC-MC	4	19,206	20,851	17,371	13,126 U	
295	28010N TRI- AC-NAVY	4	7,898	4,626	3,905	1,495 U	
	TACTICAL PROGRAMS		3,614,319	3,891,400	5,223,531	6,548,049	
296	63518N ADV NAVIG DEVELOPMENT	5	976	939	685	693 U	
297	64514N NAVIGATION SYSTEMS	5	6,050	1,483	670	394 U	
298	64577N EHF SATCOM	5	49,367	57,603	69,889	33,349 U	
299	64777N NAVSTAR GPS	5	38,822	64,372	63,096	70,399 U	
300	65866N C2 SYSTS PLAN/ENG SUPP	5	4,908	4,517	6,165	6,091 U	
301	31303N FIELD OPER INTELL OFFICE	5					
302	31326N PRAIRIE SCHOOER	5					
303	31327N TECH RECONN AND SURV	5					
304	33109N SATELLITE COMMUNICATIONS	5	5,503	8,058	11,585	11,864 U	
305	33126N LONG HAUL COMM(DCS)	5	4,617	1,153			
306	33401N COMSEC	5					

PAGE N-15

UNCLASSIFIED

DEPARTMENT OF THE NAVY
FY 1985 R D T & E PROGRAM

EXHIBIT R-1

APPROPRIATION: 1319 N RESEARCH DEVELOPMENT TEST + EVAL, NAVY

DATE: 01 FEB 1984

PROGRAM LINE ELEMENT NO	ITEM NOMENCLATURE	ACT	THOUSANDS OF DOLLARS				
			FY 1983	FY 1984	FY 1985	FY 1986	C
307	34111N SPECIAL ACTIVITIES	5					
	INTELLIGENCE AND COMMUNICATIONS						
			266,835	337,324	421,535	408,919	
308	63728N MANUFACTURING TECH	6		49,127			U
309	64208N RANGE INST & SYS DEV	6	10,498	9,403	20,273	21,246	U
310	64258N TARGET SYSTEMS DEV	6	44,727	56,429	84,197	119,332	U
311	64703N TRNG & PERS SYS DEV	6	6,958	3,224	5,636	3,736	U
312	64709N JT MPWR/PERS PROTOS	6	2,152				U
313	65151M STUDIES & ANAL SUP/MC	6	1,354	1,815	2,199	2,308	U
314	65152N STUDIES & ANAL SUP/NAVY	6	5,180	5,261	3,554	4,062	U
315	65153M MCOAG	6	2,755	2,679	2,960	3,659	U
316	65154N CENTER FOR NAVAL ANAL/NAVY	6	12,445	10,672	12,525	14,517	U
317	65156M MC OPERATIONAL T&E	6	863	2,527	2,618	1,907	U
318	65502N SML BUSINESS INNOVATN RES	6	3,805	16,300			
319	65804N TECH INFO SERVICES	6	1,745	1,633	2,216	2,576	U
320	65852N AUTEC	6	43,658	44,893	48,565	52,548	U
321	65854M DEVELOPMENT CENTER SUPPORT	6	2,276	3,712	3,946	4,130	U
322	65857N INTERNATIONAL RDT&E	6	1,799	1,512	1,869	2,133	U
323	65859N MOBILE SEA RANGE	6	3,261	2,642	5,724	8,147	U
324	65861N RDT&E LAB & FAC MGMT SPT	6	63,838	60,934	64,569	73,583	U
325	65862N RDT&E INSTRUM & MATL SPT	6	32,424	24,448	18,892	20,749	U
326	65863N RDT&E SHIP & AIRCRAFT SPT	6	67,893	65,738	84,737	92,638	U

PAGE N-16

UNCLASSIFIED

UNCLASSIFIED

DEPARTMENT OF THE NAVY
FY 1985 R D T & E PROGRAM

EXHIBIT R-1

APPROPRIATION: 1319 N RESEARCH DEVELOPMENT TEST + EVAL, NAVY

DATE: 01 FEB 1984

LINE NO	PROGRAM ELEMENT NUMBER	ITEM NOMENCLATURE	ACT	FY 1983	FY 1984	FY 1985	FY 1986	THOUSANDS OF DOLLARS	U C
327	65864N	TEST AND EVAL SPT	6	268,261	263,692	288,351	317,771		U
328	65865N	OT&E CAPABILITY	6	5,750	6,573	7,137	7,411		U
329	65870N	STRATEGIC SYSTEMS TEST SUP	6	17,508					U
330	65872N	PRODUCTIVITY IMPROVEMENT	6	4,510	4,055	3,532	1,789		U
331	35111N	WEATHER SERVICE	6	1,186	1,543	1,402	1,741		U
332	35160N	DEF METEOROLOG SATELL PROG	6	773	789	21,482	55,788		U
		DEFENSEWIDE MISSION SUPPORT		605,619	639,601	686,384	811,771		
TOTAL RESEARCH DEVELOPMENT TEST + EVAL, NAVY				6,100,131	7,571,718	9,826,076	11,676,119		

PAGE N-17

UNCLASSIFIED

AIR FORCE

UNCLASSIFIED

DEPARTMENT OF THE AIR FORCE
FY 1985 R D T & E PROGRAM

EXHIBIT R-1

SUMMARY

DATE: 01 FEB 1984

THOUSANDS OF DOLLARS

	FY 1983	FY 1984	FY 1985	FY 1986
	----	----	----	----

SUMMARY RECAP OF RESEARCH CATEGORIES

RESEARCH	167,352	192,510	206,941	238,215
EXPLORATORY DEVELOPMENT	529,031	534,748	570,715	621,568
ADVANCED DEVELOPMENT	938,140	1,347,981	2,295,016	2,781,810
ENGINEERING DEVELOPMENT	5,544,029	5,890,680	5,907,323	4,460,056
MANAGEMENT AND SUPPORT	740,302	788,662	894,835	923,038
RESEARCH AND DEVELOPMENT (FYDP PROGRAM 6)	7,918,854	8,754,581	9,874,830	9,024,687
OPERATIONAL SYSTEMS DEVELOPMENT	2,702,327	3,466,125	4,527,125	4,696,032
TOTAL RESEARCH DEVELOPMENT TEST + EVAL, AIR FORCE	10,621,181	12,220,706	14,401,955	13,720,719

SUMMARY RECAP OF BUDGET ACTIVITIES

TECHNOLOGY BASE	696,383	727,258	777,656	859,783
ADVANCED TECHNOLOGY DEVELOPMENT	415,312	557,229	583,980	654,183
STRATEGIC PROGRAMS	4,538,846	5,484,358	6,068,703	5,092,653
TACTICAL PROGRAMS	2,140,279	2,201,177	2,954,397	2,957,742
INTELLIGENCE AND COMMUNICATIONS	1,391,972	1,607,768	2,018,033	2,269,075
DEFENSEWIDE MISSION SUPPORT	1,438,389	1,642,916	1,999,186	1,887,283
TOTAL RESEARCH DEVELOPMENT TEST + EVAL, AIR FORCE	10,621,181	12,220,706	14,401,955	13,720,719

SUMMARY RECAP OF FYDP PROGRAMS

STRATEGIC FORCES	474,606	423,563	409,294	390,883
GENERAL PURPOSE FORCES	554,170	610,610	845,690	772,687
INTELLIGENCE AND COMMUNICATIONS	1,647,442	2,351,336	3,150,880	3,388,453
AIRLIFT/SEALIFT	9,604	11,190	33,116	28,443
RESEARCH AND DEVELOPMENT (FYDP PROGRAM 6)	7,918,854	8,754,581	9,874,830	9,024,687
CENTRAL SUPPLY AND MAINTENANCE	13,649	63,858	78,095	105,141
TRAINING MEDICAL AND OTHER		2,846	7,208	7,517
SUPPORT OF OTHER NATIONS	2,856	2,722	2,842	2,908
TOTAL RESEARCH DEVELOPMENT TEST + EVAL, AIR FORCE	10,621,181	12,220,706	14,401,955	13,720,719

UNCLASSIFIED

UNCLASSIFIED

DEPARTMENT OF THE AIR FORCE
FY 1985 R D T & E PROGRAM

EXHIBIT R-1

APPROPRIATION: 3600 F RESEARCH DEVELOPMENT TEST + EVAL, AIR FORCE

DATE: 01 FEB 1984

PROGRAM ELEMENT NO	ITEM NOMENCLATURE	ACT	FY 1983	FY 1984	FY 1985	FY 1986 C
						THOUSANDS OF DOLLARS
1	61101F IN-HOUSE LAB INDEPENDENT RESEARCH	1	12,624	13,069	16,826	19,755 U
2	61102F DEFENSE RESEARCH SCIENCES	1	154,728	179,441	190,115	218,460 U
3	62101F GEOPHYSICS	1	38,731	40,037	37,116	40,456 U
4	62102F MATERIALS	1	46,879	47,344	52,431	56,625 U
5	62201F AEROSPACE FLIGHT DYNAMICS	1	62,687	61,192	64,193	66,382 U
6	62202F AEROSPACE BIOTECHNOLOGY	1	41,228	42,114	47,382	52,217 U
7	62203F AEROSPACE PROPULSION	1	53,788	55,893	60,445	63,808 U
8	62204F AEROSPACE AVIONICS/VHSI CIRCUITS	1	69,409	69,613	72,510	80,394 U
9	62205F TRAINING/SIMULATION TECH	1	17,226	22,477	23,240	27,105 U
10	62302F ROCKET PROPULSION	1	37,342	35,210	40,020	45,416 U
11	62601F ADVANCED WEAPONS	1	45,396	45,664	44,794	45,170 U
12	62602F CONVENTIONAL MUNITIONS	1	38,036	39,500	42,820	49,074 U
13	62702F COMMAND/CONTROL/COMMUNICATION	1	71,650	68,754	76,935	84,872 U
14	62703F PERS UTILIZATION TECH	1	6,659	6,950	8,829	10,049 U
	TECHNOLOGY BASE		696,383	727,258	777,656	859,783
15	63106F LOGISTICS RESEARCH & DEV RQMTS	2		2,985	5,248	4,810 U
16	63202F ACFT PROPULSION SUBSYS INTEGRATION	2	19,068	25,325	26,967	29,623 U
17	63203F ADV AVIONICS FOR ACFT	2	16,561	19,900	21,822	24,106 U
18	63205F FLT VEHICLE TECHNOLOGY	2	8,451	13,000	20,917	21,887 U
19	63208F RECON SENSORS/PROCESSING TECHNOLOGY	2	4,600	4,975	8,323	10,484 U
20	63211F AEROSPACE STRUCTURES/MATERIALS	2	21,845	22,649	10,938	20,827 U

PAGE F-1

UNCLASSIFIED

UNCLASSIFIED

DEPARTMENT OF THE AIR FORCE
FY 1985 R D T & E PROGRAM

EXHIBIT R-1

APPROPRIATION: 3600 F RESEARCH DEVELOPMENT TEST + EVAL, AIR FORCE

DATE: 01 FEB 1984

PROGRAM LINE ELEMENT NO	ITEM NOMENCLATURE	ACT	FY 1983	FY 1984	FY 1985	FY 1986	THOUSANDS OF DOLLARS	S E C
21	63215F AVIATION TURBINE FUEL TECHNOLOGY	2	8,699	4,642	4,289	8,719	U	
22	63216F ADV TURBINE ENGINE GAS GENERATOR	2	27,579	25,132	25,454	34,460	U	
23	63217F SPECIAL POWER SYSTEMS	2			1,000	2,990	U	
24	63226F DOD COMMON PROG LANGUAGE(ADA)ADV DEV	2	8,320	7,762	8,055	7,624	U	
25	63227F ADVANCED SIMULATOR TECHNOLOGY	2	14,738	6,698	7,486	4,507	U	
26	63231F CREW SYSTEMS TECHNOLOGY	2	1,800	6,866	10,726	13,634	U	
27	63244F ACFT NON-NUCLEAR SURVIVABILITY	2		2,895	3,931	3,350	U	
28	63245F ADV FIGHTER TECH INTEGRATION	2	9,467	12,039	18,954	22,766	U	
29	63250F LINCOLN LABORATORY	2	27,078	23,950	23,700	26,943	U	
30	63253F ADVANCED SYSTEM INTEGRATION DEMO	2	13,921	23,523	33,155	21,127	U	
31	63259F CARTOG APPLICATIONS-TAC & STRAT SYS	2			1,094	2,440	U	
32	63302F SPACE & MSL ROCKET PROPULSION	2		1,273	5,547	12,302	U	
33	63313F ADV MSL SUBSYSTEMS DEMONSTRATION	2			1,234	1,232	U	
34	63314F STRATEGIC LASER SYSTEMS TECHNOLOGY	2		46,243			U	
35	63319F ADVANCED TECHNOLOGY CRUISE MISSILE	2		17,672	15,417	10,845	U	
36	63363F HYPERVELOCITY MISSILE	2	992	970	2,994		U	
37	63365F SPACE BIOTECHNOLOGY	2			700	2,492	U	
38	63401F ADVANCED SPACECRAFT TECH	2	4,339	6,283	30,726	28,913	U	
39	63406F ADV MILITARY SPACEFLIGHT TECHNOLOGY	2			2,829	8,936	U	
40	63410F SPACE SYS ENVIRON INTERACTIONS TECH	2	1,000	1,045	3,730	5,063	U	
41	63424F MSL SURVEILLANCE TECH	2		7,129	6,985	9,950	U	

PAGE F-2

UNCLASSIFIED

UNCLASSIFIED

DEPARTMENT OF THE AIR FORCE
FY 1985 R D T & E PROGRAM

EXHIBIT R-1

APPROPRIATION: 3600 F RESEARCH DEVELOPMENT TEST + EVAL, AIR FORCE

DATE: 01 FEB 1984

PROGRAM LINE ELEMENT NO	ITEM NOMENCLATURE	ACT	FY 1983	FY 1984	FY 1985	FY 1986
42	63452F VERY HIGH SPEED INTEGRATED CIRCUITS	2	66,004	120,109	119,978	102,910 U
43	63601F CONVENTIONAL WEAPONS	2	19,177	18,000	21,749	28,687 U
44	63605F ADVANCED RADIATION TECH	2	87,466	46,680	12,399	37,146 U
45	63704F MANPOWER & PERSONNEL SYS TECH	2		796	2,039	2,247 U
46	63707F WEATHER SYSTEMS	2		3,212	2,955	2,460 U
47	63718F ELECTRONIC WARFARE TECHNOLOGY	2		20,136	22,105	25,683 U
48	63723F CIVIL/ENVIRONMENTAL ENGR TECH	2	4,102	4,385	17,247	11,716 U
49	63726F FIBER OPTICS DEVELOPMENT	2		2,702	3,053	3,946 U
50	63727F ADVANCED COMMUNICATIONS TECHNOLOGY	2		3,824	4,838	5,003 U
51	63728F ADVANCED COMPUTER TECHNOLOGY	2	3,457	6,858	6,672	6,983 U
52	63743F ELECTRO-OPTICAL WARFARE	2	13,200	16,214	17,808	20,165 U
53	63745F CHEMICAL WARFARE DEFENSE	2	5,577	4,554	3,824	4,301 U
54	63750F COUNTER/COUNTERMEASURES -ADV DEV	2	5,991	7,960	10,444	12,734 U
55	63751F INNOVATIONS IN EDUCATION/TRAINING	2	2,550	4,478	5,070	4,881 U
56	63752F DOD SOFTWARE ENGINEERING INSTITUTE	2			7,983	11,940 U
57	63789F COMD/CNTRL/COMM ADV DEV	2	19,330	14,365	23,595	33,351 U
	ADVANCED TECHNOLOGY DEVELOPMENT		415,312	557,229	583,980	654,183
58	63258F COMMON STRATEGIC ROTARY LAUNCHER	3	63,625	63,215	77,304	68,711 U
59	63303F TRIM (T)	3				2,956 U
60	63311F ADVANCED STRATEGIC MISSILE SYSTEMS	3	49,737	74,250	108,304	179,971 U
61	63312F ADVANCED CONCEPTS	3				

PAGE F-3

UNCLASSIFIED

DEPARTMENT OF THE AIR FORCE
FY 1985 R D T & E PROGRAM

EXHIBIT R-1

APPROPRIATION: 3600 F RESEARCH DEVELOPMENT TEST + EVAL, AIR FORCE

DATE: 01 FEB 1984

LINE NO	PROGRAM ELEMENT NUMBER
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
10	10
11	11
12	12
13	13
14	14
15	15
16	16
17	17
18	18
19	19
20	20
21	21
22	22
23	23
24	24
25	25
26	26
27	27
28	28
29	29
30	30
31	31
32	32
33	33
34	34
35	35
36	36
37	37
38	38
39	39
40	40
41	41
42	42
43	43
44	44
45	45
46	46
47	47
48	48
49	49
50	50
51	51
52	52
53	53
54	54
55	55
56	56
57	57
58	58
59	59
60	60
61	61
62	62
63	63
64	64
65	65
66	66
67	67
68	68
69	69
70	70
71	71
72	72
73	73
74	74
75	75
76	76
77	77
78	78
79	79
80	80
81	81
82	82
83	83
84	84
85	85
86	86
87	87
88	88
89	89
90	90
91	91
92	92
93	93
94	94
95	95
96	96
97	97
98	98
99	99
100	100

ITEM NOMENCLATURE

ACT

FY 1983

FY 1984

EV 1985

THOUSANDS OF DOLLARS

၇၂၆

[illegible]

PAGE F-4

UNCLASSIFIED

UNCLASSIFIED

DEPARTMENT OF THE AIR FORCE
FY 1985 R D T & E PROGRAM

EXHIBIT R-1

APPROPRIATION: 3600 F RESEARCH DEVELOPMENT TEST + EVAL, AIR FORCE

DATE: 01 FEB 1984

PROGRAM LINE ELEMENT NO	ITEM NOMENCLATURE	ACT	THOUSANDS OF DOLLARS				FY 1986 C
			FY 1983	FY 1984	FY 1985	FY 1986 E	
83	12311F NCMC - SPACE DEFENSE SYSTEMS	3	24,211	46,964	52,253	70,478	U
84	12313F BALLISTIC MSL TAC WNG/ATK ASSES SYS	3	1,283	1,875	3,214	2,940	U
85	12325F JOINT SURVEILLANCE SYSTEM	3	1,187	762	1,802	1,069	U
86	12411F SURVEILL RADAR STATIONS/SITES	3	2,643	5,256	11,890	7,870	U
87	12412F DEW RADAR STATIONS	3	8,000	24,537	63,094	6,814	U
88	12417F CONU OVER-THE HORIZON RADAR	3	77,170	96,875	60,904	67,991	U
89	12423F BALLISTIC MSL EARLY WNG SYSTEM	3	10,262	10,699	10,016	9,574	U
90	12424F SPACETRACK	3	6,119	5,009	10,214	9,047	U
91	12431F DEFENSE SUPPORT PROGRAM	3	121,583	46,669	63,985	49,884	U
92	12432F SLBM RADAR WARNING SYSTEMS	3	2,370	3,719	12,219	13,324	U
93	12433F SPACE DEFENSE INTERFACE NETWORK	3	19,885	30,170	34,795	15,358	U
94	12436F COMD CTR PROCESS/DISPLAY SYS	3		2,966	11,661	19,136	U
95	12450F SPACE DEFENSE OPS	3	6,470				U
96	32015F NEAC /E-4B CL V MODS	3		20,427	27,102	21,784	U
97	33131F MINIMUM ESSENTIAL EMER COMM NETWORK	3	46,691	107,751	116,900	68,507	U
98	33154F WWMCCS INFORMATION SYSTEM - JPMO	3	5,000	25,005	32,629	50,070	U
99	33601F AIR FORCE SAT COMM SYS	3	43,129	177,552	141,592	114,801	U
100	33603F MILSTAR COMM SAT SYSTEM	3	117,627	148,409	325,042	340,779	U
101	35155F THEATER NUC WPN STORAGE&SEC SYS	3		2,153	1,958	1,972	U
102	35158F SATELLITE DATA SYSTEM	3	7,886	7,548			U
103	35172F BERNIE	3					

PAGE F-5

UNCLASSIFIED

UNCLASSIFIED

DEPARTMENT OF THE AIR FORCE
FY 1985 R D T & E PROGRAM

EXHIBIT R-1

APPROPRIATION: 3600 F RESEARCH DEVELOPMENT TEST + EVAL, AIR FORCE

DATE: 01 FEB 1984

PROGRAM LINE ELEMENT NO	ITEM NOMENCLATURE	ACT	FY 1983	FY 1984	FY 1985	FY 1986 C	THOUSANDS OF DOLLARS	
104	35892F SPECIAL ANALYSIS ACTYS	3						
	STRATEGIC PROGRAMS		4,538,846	5,484,358	6,068,703	5,092,653		
105	63230F ADVANCED TACTICAL FIGHTER	4	20,010	34,650	94,287	249,830	U	
106	63239F ADV TACTICAL AIR RECONNAISSANCE SYS	4			3,735	6,898	U	
107	63244F ACFT NON-NUCLEAR SURVIVABILITY	4	2,011				U	
108	63249F NIGHT ATTACK PROGRAM	4	5,206	3,711			U	
109	63256F JNT SERVICE ADV VERT LIFT ACFT (JVX)	4			1,086	9,542	U	
110	63307F AIR BASE SURVIVABILITY & RECOVERY	4		3,794	4,426	5,101	U	
111	63366F ADVANCED AIRCRAFT GUN	4				986	U	
112	63437F HAVE DJINN	4						
113	63609F ADV ATTACK WEAPONS	4	17,999		20,024	24,397	U	
114	63714F DOD PHYSICAL SECURITY EQ-EXTERIOR	4	3,911	3,601	1,885	932	U	
115	63718F ELECTRONIC WARFARE TECHNOLOGY	4	11,697				U	
116	63726F FIBER OPTICS DEVELOPMENT	4	2,864				U	
117	63727F ADVANCED COMMUNICATIONS TECHNOLOGY	4	6,572				U	
118	63742F COMBAT IDENTIFICATION TECHNOLOGY	4	13,186	13,499	19,324	10,335	U	
119	63747F PAVE MOVER	4	2,003				U	
120	63749F C3CM ADVANCED SYSTEMS	4		990	994	4,439	U	
121	63770F JT SURV.TGT ATK RADAR SYS(JSTARS)	4			3,318	3,270	U	
122	63801F SPECIAL PROGRAMS	4						
123	64201F ACFT AVIONICS EQUIPMENT DEVELOPMENT	4	12,967	18,810	25,809	25,395	U	

PAGE F-6

UNCLASSIFIED

UNCLASSIFIED

DEPARTMENT OF THE AIR FORCE
FY 1985 R D T & E PROGRAM

EXHIBIT R-1

APPROPRIATION: 3600 F RESEARCH DEVELOPMENT TEST + EVAL, AIR FORCE

DATE: 01 FEB 1984

PROGRAM LINE ELEMENT NO	ITEM NOMENCLATURE	ACT	FY 1983	FY 1984	FY 1985	FY 1986	THOUSANDS OF DOLLARS
124	64209F F-100 DURABILITY	4		32,500	14,003		2,954 U
125	64212F AIRCRAFT EQUIPMENT DEV	4	2,089	7,680	12,047		16,972 U
126	64218F ENGINE MODEL DERIVATIVE PROG	4	35,734	58,513	9,198		21,950 U
127	64220F EW COUNTER RESPONSE	4	21,315	28,903	23,917		36,293 U
128	64222F NUCLEAR WEAPONS SUPPORT	4	2,298	1,912	1,947		2,080 U
129	64223F ALTERNATE FIGHTER ENGINE	4	97,747	94,955	56,943		14,687 U
130	64231F C-17 PROGRAM	4	60,000	26,565	129,285		364,186 U
131	64247F MODULAR AUTOMATIC TEST EQUIPMENT	4	33,784	16,034	15,798		13,387 U
132	64249F NIGHT PRECISION ATTACK	4	99,864	58,092	98,338		43,615 U
133	64268F ACFT ENGINE COMPONENT IMPROVE PROG	4	107,322	125,230	149,785		166,551 U
134	64302F DEF SUPPRESSION WPNS ENG DEV	4			14,795		17,708 U
135	64313F NEXT GENERATION TRAINER	4	52,045	122,260	77,977		55,916 U
136	64314F ADV MED RANGE AIR TO-AIR MSL	4	207,065	186,735	217,749		103,401 U
137	64321F JOINT TACTICAL FUSION PROGRAM	4	5,495	4,713	17,787		22,761 U
138	64324F JOINT TACTICAL MISSILE SYSTEM	4			35,509		86,571 U
139	64362F GRD LAUNCHED CRUISE MSL	4	28,331	36,167	18,654		U
140	64601F C/B DEFENSE EQUIPMENT	4	16,465	15,415	18,222		13,193 U
141	64602F ARMAMENT ORDNANCE DEVELOPMENT	4	19,538	20,660	20,764		21,849 U
142	64604F SUBMUNITIONS	4			48,677		38,776 U
143	64606F JOINT TACTICAL MISSILE SYSTEM	4	24,750	9,821			U
144	64607F WIDE AREA ANTI ARMOR MUNITION	4	13,729	23,500	27,306		12,558 U

PAGE F-7

UNCLASSIFIED

UNCLASSIFIED

DEPARTMENT OF THE AIR FORCE
FY 1985 R D T & E PROGRAM

EXHIBIT R-1

APPROPRIATION: 3600 F RESEARCH DEVELOPMENT TEST + EVAL, AIR FORCE

DATE: 01 FEB 1984

PROGRAM LINE ELEMENT NO	ITEM NOMENCLATURE	ACT	THOUSANDS OF DOLLARS				FY 1986 C E
			FY 1983	FY 1984	FY 1985	FY 1986 U	
145	64608F CLOSE AIR SUPPORT WEAPONS SYSTEM	4		1,505			U
146	64612F LOW LEVEL LASER GUIDED BOMB	4	3,002				U
147	64614F MEDIUM RANGE AIR TO-SURFACE MISSILE	4	42,352				U
148	64616F JSTARS	4	29,328	41,019			U
149	64617F AIR BASE SURVIVABILITY & RECOVERY	4		6,106	18,092		23,992 U
150	64703F AEROMEDICAL SYSTEMS DEVELOPMENT	4		3,824	7,007		9,726 U
151	64706F LIFE SUPPORT SYSTEM	4	12,013	14,689	15,649		19,852 U
152	64708F OTHER OPERATIONAL EQUIPMENT	4	19,203	9,956	22,846		21,469 U
153	64710F RECONNAISSANCE EQUIPMENT	4	5,088	8,382	9,631		25,372 U
154	64715F DOD PHYSICAL SECURITY EQ-EXTERIOR	4	19,095	14,969	12,562		13,214 U
155	64724F TAC C3 COUNTER MEASURES	4	24,626	28,237	28,100		23,941 U
156	64725F COMBAT IDENTIFICATION SYSTEMS	4	18,800	23,645	16,046		31,454 U
157	64733F SURFACE DEF SUPPRESSION	4	5,705	9,405	24,533		18,396 U
158	64737F AIRBORNE SELF PROTECTION JAMMER	4	47,426	41,819	29,149		11,467 U
159	64738F PROTECTIVE SYSTEMS	4	108,222	48,468	48,565		52,239 U
160	64739F TACTICAL PROTECTIVE SYSTEMS	4	26,493	33,237	86,631		62,779 U
161	64740F COMPUTER RESOURCES MGT TECH	4	4,297	6,297	12,358		15,454 U
162	64742F PRECISION LOCATION STRIKE SYSTEM	4	78,727	69,027	82,996		63,344 U
163	64750F INTELLIGENCE EQUIPMENT	4	14,812	12,675	15,255		15,020 U
164	64753F COMBAT HELICOPTER MODERNIZATION	4	27,222	36,222	81,306		28,986 U
165	64754F JT TAC INFO DIST SYS	4	52,513	45,540	86,703		95,280 U

PAGE F-8

UNCLASSIFIED

UNCLASSIFIED

DEPARTMENT OF THE AIR FORCE
FY 1985 R D T & E PROGRAM

EXHIBIT R-1

APPROPRIATION: 3600 F RESEARCH DEVELOPMENT TEST + EVAL, AIR FORCE

DATE: 01 FEB 1984

PROGRAM LINE ELEMENT NO	ITEM NOMENCLATURE	ACT	THOUSANDS OF DOLLARS				FY 1986 C
			FY 1983	FY 1984	FY 1985	FY 1986 U	
166	64756F SIDE LOOKING AIRBORNE RADAR (SLAR)	4	30,492	23,644	24,547	22,102	U
167	64770F JSTARS	4			94,966	110,560	U
168	64779F JT INTEROPERABILITY TAC CMD/CNTRL	4	3,837	5,410	13,452	9,342	U
169	11133F SR-71 SQUADRONS	4					
170	27128F F-4 SQUADRONS	4					
171	27129F F-111 SQUADRONS	4	38,190	75,240	71,942	46,259	U
172	27130F F-15 SQUADRONS	4	115,212	107,605	82,867	34,339	U
173	27131F A-10 SQUADRONS	4	6,000	2,639	4,108	3,170	U
174	27132F FIGHTER DERIVATIVE	4		19,315	146,950	244,226	U
175	27133F F-16 SQUADRONS	4	71,933	104,412	83,428	44,756	U
176	27136F F-4G WILD WEASEL SQUADRONS	4	20,000	37,620	55,267	40,505	U
177	27162F TACTICAL AGM MISSILES	4	4,790	4,065	3,695		U
178	27247F AIR FORCE TENCAP	4	285	271	260	255	U
179	27411F OVERSEAS AIR WEAPON CNT SYS	4	2,896	3,280	3,154	3,135	U
180	27412F TACTICAL AIR CONTROL SYSTEM	4	21,775	8,553	28,397	22,870	U
181	27417F AIR BORNE WARNING & CONTROL SYS	4	66,980	63,360	76,595	101,951	U
182	27423F ADV COMM SYS	4	12,079	38,720	86,963	116,576	U
183	27431F TAC AIR INTELL SYS ACTYS	4	8,243	1,439	1,579	2,950	U
184	27435F TACTICAL RECON IMAGERY EXPLOITATION	4			1,156	2,460	U
185	27584F SEEK AXLE	4					
186	27585F SEEK SPINNER	4	28,900	30,574			

PAGE F-9

UNCLASSIFIED

UNCLASSIFIED

DEPARTMENT OF THE AIR FORCE
FY 1985 R D T & E PROGRAM

EXHIBIT R-1

APPROPRIATION: 3600 F RESEARCH DEVELOPMENT TEST + EVAL, AIR FORCE

DATE: 01 FEB 1984

PROGRAM ELEMENT NO	ITEM NOMENCLATURE	ACT	THOUSANDS OF DOLLARS				E
			FY 1983	FY 1984	FY 1985	FY 1986	
187	27591F OMEGA	4					
188	27595F BASE COMM - TACTICAL AIR FORCES	4		476	985	982	U
189	28010F JT TACTICAL COMM PROG (TRI-TAC)	4					
190	28041F JOINT ADVANCED SYSTEMS	4	47,614	20,587	11,467	6,614	U
191	28042F HAVE FLAG	4					
192	33605F SATELLITE COMMUNICATIONS TERMINALS	4					
193	35887F ELECTROMAGNETIC COMBAT INTEL SPT	4					
194	41115F C-130 AIRLIFT SQUADRONS (IF)	4	1,523	1,822	2,860	2,735	U
195	41118F C-141 AIRLIFT SQUADRONS (IF)	4		461	1,928	1,828	U
196	41119F C-5 AIRLIFT SQUADRONS (IF)	4		3,118	789		U
197	41129F THEME CASTLE	4	7,327	4,384			U
198	41314F OPERATIONAL SUPPORT AIRLIFT	4	2,277				U
199	41840F MAC COMMAND/CONTROL SYS	4					
200	41841F WWMCCS ADP MAC	4					
	TACTICAL PROGRAMS		2,140,279	2,201,177	4,413	5,322	U
201	63431F SPACE COMMUNICATIONS	5	36,849	39,525			
202	64778F NAVSTAR GPS USER EQUIPMENT	5	122,568	94,757	44,413	51,070	U
203	27582F HAVE TRUMP	5			60,970	35,942	U
204	31305F INTELLIGENCE PRODUCTION ACTIVITIES	5					
205	31310F FOREIGN TECHNOLOGY DIVISION	5					
206	31314F INFRARED PROCESSING + EXPLOITATION	5					
				243		29,565	U

UNCLASSIFIED

UNCLASSIFIED

DEPARTMENT OF THE AIR FORCE
FY 1985 R D T & E PROGRAM

EXHIBIT R-1

APPROPRIATION: 3600 F RESEARCH DEVELOPMENT TEST + EVAL, AIR FORCE

DATE: 01 FEB 1984

THOUSANDS OF DOLLARS

PROGRAM LINE ELEMENT NO	ITEM NOMENCLATURE	ACT	FY 1983	FY 1984	FY 1985	FY 1986 C
207	31315F MISSILE AND SPACE TECH COLLECTION	5	651			
208	31316F TECHNICAL SENSOR COLLECTION	5	2,000	2,780		
209	31317F SENIOR YEAR OPERATIONS	5				
210	31324F FOREST GREEN	5				
211	31339F INTEL COMM & DEF SPEC SECURITY SYS	5	1,996	1,073		
212	31357F INTEG OPERATIONAL NUDETS DETECT SYS	5	41,933	39,836	31,629	3,104 U
213	33110F DEF SATELLITE COMM SYS	5	13,237	6,123	9,329	11,543 U
214	33126F LONG HAUL COMMUNICATIONS (DCS)	5	7,337	7,051	7,764	8,098 U
215	33144F ELECTROMAG COMPATIBILITY ANAL CTR	5	1,621	1,527		
216	33401F COMMUNICATIONS SECURITY	5	1,126,200	1,336,270		
217	34111F SPECIAL ACTIVITIES	5	4,195	6,075	11,766	25,825 U
218	35114F TRAFFIC CNTRL/APPROACH/LANDING SYS	5		6,709	9,060	22,900 U
219	35164F NAVSTAR GLOBAL POS SYS (USER EQ)	5		25,243	33,464	57,005 U
220	35165F NAVSTAR GPS (SPACE/GRD SEGMENTS)	5		2,846	7,208	7,517 U
221	84733F GEN INTELLIGENCE SKILL TNG	5				
	INTELLIGENCE AND COMMUNICATIONS		1,391,972	1,607,768	2,018,033	2,269,075
222	63248F CONCEPT DEVELOPMENT	6		495	2,479	3,095 U
223	63402F SPACE TEST PROGRAM	6	64,573	70,356	71,500	72,983 U
224	63438F SATELLITE SYS SURVIVABILITY	6	20,525	29,511	5,519	8,179 U
225	63707F WEATHER SYSTEMS	6	3,638			U
226	64211F ADV AERIAL TARGETS DEV	6	12,648	10,278	3,409	7,302 U

PAGE F-11

UNCLASSIFIED

UNCLASSIFIED

DEPARTMENT OF THE AIR FORCE
FY 1985 R D T & E PROGRAM

EXHIBIT R-1

APPROPRIATION: 3600 F RESEARCH DEVELOPMENT TEST + EVAL, AIR FORCE

DATE: 01 FEB 1984

PROGRAM LINE ELEMENT NO	ITEM NOMENCLATURE	ACT	FY 1983	FY 1984	FY 1985	FY 1986	THOUSANDS OF DOLLARS
227	64227F FLIGHT SIMULATOR DEVELOPMENT	6	7,443	24,279	149,880	145,909	U
228	64411F SPACE SHUTTLE	6	356,334	333,988	345,764	134,147	U
229	64609F LOGISTICS TECH FOR WEAPONS SYSTEMS	6		4,950	7,585	15,154	U
230	64707F WEATHER SYSTEMS	6	6,007	8,030	8,283	9,126	U
231	64735F RANGE IMPROVEMENT	6	26,962	17,864	16,771	35,307	U
232	64747F ELECTROMAG RADIATION TEST FACIL	6	5,737	7,130	7,811	3,450	U
233	64755F IMPROVED CAPABILITY FOR RDT+E	6	35,468	63,500	75,054	72,086	U
234	65101F PROJECT AIR FORCE	6	16,721	16,463	16,766	17,345	U
235	65304F ACQ/COMD SPT TELECOM	6	7,016	5,945	7,137	7,614	U
236	65306F RANCH HAND II EPIDEMIOLOGY STUDY	6	840	5,025	3,308	1,494	U
237	65502F SMALL BUSINESS INNOVATION DEV	6	6,225				U
238	65708F NAV/RADAR/SLED TRACK TEST SPT	6	15,992	53,704	18,749	19,560	U
239	65806F ACQUISITION AND COMMAND SUPPORT	6	281,950	309,719	354,130	367,063	U
240	65807F TEST AND EVALUATION SPT	6	363,520	387,648	437,464	451,971	U
241	65808F ADV SYS ENGINEERING/PLAN	6	4,433	2,363	3,631	3,981	U
242	65863F RDT&E AIRCRAFT SUPPORT	6			47,511	49,680	U
243	65872F PRODUCTIVITY IMPROVEMENT	6		1,980	6,139	4,330	U
244	65890F AUDIOVISUAL ACTIVITIES - R & D	6	6,251	5,815			U

PAGE F-12

UNCLASSIFIED

UNCLASSIFIED

DEPARTMENT OF THE AIR FORCE
FY 1985 R D T & E PROGRAM

EXHIBIT R-1

APPROPRIATION: 3600 F RESEARCH DEVELOPMENT TEST + EVAL, AIR FORCE

DATE: 01 FEB 1984

PROGRAM LINE ELEMENT NO	ITEM NOMENCLATURE	ACT	FY 1983	FY 1984	FY 1985	FY 1986 C	THOUSANDS OF DOLLARS
245	65898F MGT HQ (RESEARCH/DEV)	6	37,354				U
246	33151F WMC S - ADP	6			680		4,731 U
247	35110F SATELLITE CONTROL FACILITY	6	60,219	71,725	99,224		53,850 U
248	35119F SPACE BOOSTERS	6	15,011	15,441	20,356		8,962 U
249	35130F CONSOLIDATED SPACE OPERATIONS CENTER	6	27,526	70,677	72,698		89,289 U
250	35160F DEF METEOROLOGICAL SATELLITE PROG	6	23,072	25,270	42,566		76,651 U
251	35171F SPACE LAUNCH SUPPORT	6	16,419	34,180	93,835		115,975 U
252	71112F INVENTORY CONTROL POINT OPERATIONS	6			1,371		14,274 U
253	78011F INDUSTRIAL PREPAREDNESS	6	1,977	49,005	61,859		71,120 U
254	78019F UTAH TESTING + TRAINING RANGE	6	1,991	2,207			U
255	78026F PRODUCT/RELIABLE/AVAIL/MAINTAIN PROG	6	9,681	12,646	14,865		19,747 U
256	01004F INTERNATIONAL ACTIVITIES	6	2,856	2,722	2,842		2,908 U
	DEFENSEWIDE MISSION SUPPORT		1,438,389	1,642,916	1,999,186		1,887,283
TOTAL	RESEARCH DEVELOPMENT TEST + EVAL, AIR FORCE		10,621,181	12,220,706	14,401,955		13,720,719

PAGE F-13

UNCLASSIFIED

DEFENSE AGENCIES

UNCLASSIFIED

DEFENSE AGENCIES
FY 1985 R D T & E PROGRAM

EXHIBIT R-1

SUMMARY

DATE: 01 FEB 1984

THOUSANDS OF DOLLARS

	FY 1983	FY 1984	FY 1985	FY 1986
SUMMARY RECAP OF RESEARCH CATEGORIES				
RESEARCH	106,058	110,367	104,374	121,291
EXPLORATORY DEVELOPMENT	927,292	756,895	728,827	925,954
ADVANCED DEVELOPMENT	16,588	356,176	2,027,447	4,032,033
ENGINEERING DEVELOPMENT	8,719	5,569	8,273	8,668
MANAGEMENT AND SUPPORT	58,169	96,088	89,692	114,647
RESEARCH AND DEVELOPMENT (FYDP PROGRAM 6)	1,116,826	1,325,095	2,958,613	5,202,593
OPERATIONAL SYSTEMS DEVELOPMENT	1,036,363	1,442,325	1,749,293	1,888,658
TOTAL RESEARCH DEVELOPMENT TEST + EVAL, DEF AGENCIES	2,153,189	2,767,420	4,707,906	7,091,251
SUMMARY RECAP OF BUDGET ACTIVITIES				
TECHNOLOGY BASE	1,033,350	867,262	832,688	1,046,193
ADVANCED TECHNOLOGY DEVELOPMENT	84,961	335,497	1,993,311	4,002,243
STRATEGIC PROGRAMS	700	76,477	59,444	54,702
TACTICAL PROGRAMS	974,009	2,060	2,134	2,123
INTELLIGENCE AND COMMUNICATIONS	60,169	1,382,181	1,708,531	1,851,941
DEFENSEWIDE MISSION SUPPORT		103,943	111,798	134,049
TOTAL RESEARCH DEVELOPMENT TEST + EVAL, DEF AGENCIES	2,153,189	2,767,420	4,707,906	7,091,251
SUMMARY RECAP OF FYDP PROGRAMS				
GENERAL PURPOSE FORCES	700	2,060	2,134	2,123
INTELLIGENCE AND COMMUNICATIONS	1,033,663	1,438,110	1,746,239	1,884,579
RESEARCH AND DEVELOPMENT (FYDP PROGRAM 6)	1,116,826	1,325,095	2,958,613	5,202,593
SUPPORT OF OTHER NATIONS	2,000	2,155	920	1,956
TOTAL RESEARCH DEVELOPMENT TEST + EVAL, DEF AGENCIES	2,153,189	2,767,420	4,707,906	7,091,251
SUMMARY RECAP OF DEFENSE AGENCIES				
DEFENSE MAPPING AGENCY	70,300	130,142	207,444	3,862,559
DEPARTMENT OF DEFENSE (OSD AND OASDS)	29,119	95,993	1,846,112	886,912
DEFENSE ADVANCED RESEARCH PROJECTS AGENCY	728,600	864,052	714,530	
NATIONAL SECURITY AGENCY				
DEFENSE NUCLEAR AGENCY	314,000	321,458	347,014	389,102
DEFENSE RECONNAISSANCE SUPPORT PROGRAM	124,120	318,186	81,770	74,082
DEFENSE COMMUNICATIONS AGENCY	109,575	104,404		
DEFENSE INTELLIGENCE AGENCY	20,000	21,550	26,256	39,478
DEFENSE LOGISTICS AGENCY	1,800	1,767	1,874	1,991
UNIFORMED SERVICES UNIVERSITY HEALTH SCIENCES				
TOTAL RESEARCH DEVELOPMENT TEST + EVAL, DEF AGENCIES	2,153,189	2,767,420	4,707,906	7,091,251

UNCLASSIFIED

UNCLASSIFIED

DEFENSE AGENCIES
 FY 1985 R D T & E PROGRAM
 APPROPRIATION: 0400 D RESEARCH DEVELOPMENT TEST + EVAL, DEF AGENCIES

EXHIBIT R-1

DATE: 01 FEB 1984

PROGRAM LINE ELEMENT NO	ITEM NOMENCLATURE	ACT	FY 1983	FY 1984	FY 1985	FY 1986
			THOUSANDS OF DOLLARS			
1	61101E DEFENSE RESEARCH SCIENCES	1	104,258	108,600	102,500	119,300 U
2	61101W IN-HOUSE LAB INDEPENDENT RESEARCH	1	1,800	1,767	1,874	1,991 U
3	62101E TECHNICAL STUDIES	1	1,000	1,200	1,500	1,800 U
4	62107E THIRD GENERATION DEFENSE TECHNOLOGY	1		8,000		U
5	62301E STRATEGIC TECHNOLOGY	1	163,897	205,500	150,700	249,700 U
6	62702E TACTICAL TECHNOLOGY	1	83,853	99,437	109,000	131,000 U
7	62707E PARTICLE BEAM TECHNOLOGY	1	36,277	33,100	17,400	32,400 U
8	62708E INTEGRATED CMD/CONTROL TECH	1	48,407	48,000	53,000	57,400 U
9	62711E EXPERIMENTAL EVAL MAJ INNOVATIVE TECH	1	244,770			U
10	62712E MATERIALS PROCESSING TECH	1	17,153	23,700	29,200	37,100 U
11	62714E NUCLEAR MONITORING	1	17,935	16,500	20,500	26,400 U
12	62715H DEFENSE NUCLEAR AGENCY	1	314,000	321,458	347,014	389,102 U
	TECHNOLOGY BASE		1,033,350	867,262	832,688	1,046,193
13	63220D SURVEILLANCE, ACQUISITION AND TRACK	2		10,000	721,000	1,491,200 U
14	63221D DIRECTED ENERGY	2		10,000	489,000	1,020,000 U
15	63222D CONVENTIONAL WEAPONS	2		10,000	356,000	870,300 U
16	63223D SYSTEMS CONCEPT AND MANAGEMENT	2		10,000	99,000	137,500 U
17	63224D SUPPORT PROGRAMS	2		10,000	112,000	270,800 U
18	63225D JOIN DOD-DOE MUNITIONS TECH DEV	2			10,000	10,000 U

PAGE D-1-a

UNCLASSIFIED

UNCLASSIFIED

DEFENSE AGENCIES
FY 1985 R D T & E PROGRAM

EXHIBIT R-1

APPROPRIATION: 0400 D RESEARCH DEVELOPMENT TEST + EVAL, DEF AGENCIES

DATE: 01 FEB 1984

PROGRAM LINE ELEMENT NO	ITEM NOMENCLATURE	ACT	FY 1983	FY 1984	FY 1985	FY 1986	THOUSANDS OF DOLLARS
19	63226E EXP EVAL OF MAJOR INNOVATIVE TECH	2		283,615	204,300	200,000	U
20	35108K COMMAND AND CONTROL RESEARCH	2		1,882	2,011	2,443	U
	ADVANCED TECHNOLOGY DEVELOPMENT			335,497	1,993,311	4,002,243	
21	63735K WWMCCS ARCHITECTURE	3	1,262	1,227			U
22	32016K NMCS-WIDE SUPPORT	3	8,490	15,317	12,064	9,803	U
23	32017K WWMCCS ADP-JTSA	3	22,861	7,868	1,530		U
24	32019K WWMCCS SYSTEM ENGINEER	3	42,503	39,452	30,637	28,994	U
25	33131K MINIMUM ESSENTIAL EMER COMM NETWORK	3	9,845	12,613	15,213	15,905	U
	STRATEGIC PROGRAMS		84,961	76,477	59,444	54,702	
26	21135K CINC C2 INITIATIVES	4	700	2,060	2,134	2,123	U
27	62716B MAP/CHART/GEODESY	5			513	1,052	U
28	63701B MAP/CHART/GEODESY INV/PROTOTYPE DEV	5	15,326	15,634	14,961	14,787	U
29	64701B MAP/CHART/GEODESY ENGR DEV/TEST	5	8,719	5,569	8,273	8,668	U
30	31011G CRYPTOLOGIC ACTIVITIES	5					
31	31301L GENERAL DEFENSE INTELLIGENCE PROGRAM	5					
32	31398L MANAGEMENT HEADQUARTERS GDIP	5	233	339			U
33	33126K LONG-HAUL COMMUNICATIONS (DCS)	5	19,424	20,866	9,937	10,192	U
34	33127K SUPPORT OF THE NCS	5	4,490	3,119	8,244	4,622	U
35	33401G COMMUNICATIONS SECURITY	5					
36	35139B DMA EXPLOITATION PROGRAM	5			165,407	241,675	U

UNCLASSIFIED

UNCLASSIFIED

DEFENSE AGENCIES
FY 1985 R D T & E PROGRAM

EXHIBIT R-1

APPROPRIATION: 0400 D RESEARCH DEVELOPMENT TEST + EVAL, DEF AGENCIES

DATE: 01 FEB 1984

PROGRAM LINE ELEMENT NO	ITEM NOMENCLATURE	ACT	FY 1983	FY 1984	FY 1985	FY 1986	THOUSANDS OF DOLLARS	S
37	35140L EMERGENCY PREPAREDNESS	5		600	3,950			783 U
38	35159B DEFENSE RECONNAISSANCE SUPPORT ACTIVITIES	5	46,255	108,939	18,290			
39	35159I DEFENSE RECONNAISSANCE SUPPORT ACTIVITIES	5	124,120	318,186	380,713			
40	35167G COMPUTER SECURITY	5						
41	35884L INTEL PLAN AND REVIEW ACTYS	5						
42	35885G TACTICAL CRYPTOLOGIC ACTIVITIES	5						
	INTELLIGENCE AND COMMUNICATIONS		974,009	1,382,181	1,708,531			1,851,941
43	63702D SPECIAL TECHNOLOGY OFFICE/USDR&E	6		4,700	7,950			4,964 U
44	63703D COUNTER INSURGENCY & SPECIAL TECH	6			10,136			2,482 U
45	63705S MANUFACTURING TECHNOLOGY	6		1,000	3,100			10,000 U
46	65104D TECHNICAL SUPPORT TO USDR/E	6	14,568	28,170	21,421			28,037 U
47	65106D GENERAL SUPPORT FOR PA/E	6	1,825	1,959	3,231			5,314 U
48	65107D SUPPORT TO POLICY	6	5,294	2,938	7,714			10,227 U
49	65108D GENERAL SUPPORT FOR NET ASSESSMENT	6	3,097	3,721	4,801			5,375 U
50	65109D GENERAL SUPPORT FOR MRA/L	6	2,335	2,350	2,939			4,404 U
51	65112E TECHNICAL ANALYTICAL SUPPORT	6			15,000			20,000 U
52	65502E SMALL BUSINESS INNOVATIVE RESEARCH	6	600					U
53	65801S DEFENSE TECHNICAL INFO CENTER	6	16,000	16,235	18,988			24,467 U
54	65802S INFORMATION ANALYSIS CENTERS	6	4,000	4,315	4,168			5,011 U
55	65805E TRI-SERVICE NATL LASER TEST RANGE	6		25,000				U

PAGE D-3

UNCLASSIFIED

UNCLASSIFIED

DEFENSE AGENCIES
FY 1985 R D T & E PROGRAM

EXHIBIT R-1

APPROPRIATION: 0400 D RESEARCH DEVELOPMENT TEST + EVAL, DEF AGENCIES

DATE: 01 FEB 1984

THOUSANDS OF DOLLARS

PROGRAM LINE ELEMENT NO	ITEM NOMENCLATURE	ACT	FY 1983	FY 1984	FY 1985	FY 1986 C	S E
56	65898E MGT HQ (RESEARCH/DEVELOPMENT)	6	10,450	11,400	11,430	11,812	U
57	01015D TECHNOLOGY TRANSFER FUNCTIONS	6	2,000	2,155	920	1,956	U
	DEFENSEWIDE MISSION SUPPORT		60,169	103,943	111,798	134,049	
TOTAL RESEARCH DEVELOPMENT TEST + EVAL, DEF AGENCIES			2,153,189	2,767,420	4,707,906	7,091,251	

PAGE D-4

UNCLASSIFIED

UNCLASSIFIED

DEFENSE AGENCIES
FY 1985 R D T & E PROGRAM

EXHIBIT R-1

SUMMARY

DATE: 01 FEB 1984

THOUSANDS OF DOLLARS

	FY 1983	FY 1984	FY 1985	FY 1986
SUMMARY RECAP OF RESEARCH CATEGORIES				
MANAGEMENT AND SUPPORT	55,000	49,000	62,000	72,055
RESEARCH AND DEVELOPMENT (FYDP PROGRAM 6)	55,000	49,000	62,000	72,055
TOTAL DIRECTOR OF TEST + EVALUATION, DEFENSE	55,000	49,000	62,000	72,055
SUMMARY RECAP OF BUDGET ACTIVITIES				
DEFENSEWIDE MISSION SUPPORT	55,000	49,000	62,000	72,055
TOTAL DIRECTOR OF TEST + EVALUATION, DEFENSE	55,000	49,000	62,000	72,055
SUMMARY RECAP OF FYDP PROGRAMS				
RESEARCH AND DEVELOPMENT (FYDP PROGRAM 6)	55,000	49,000	62,000	72,055
TOTAL DIRECTOR OF TEST + EVALUATION, DEFENSE	55,000	49,000	62,000	72,055

UNCLASSIFIED

UNCLASSIFIED

DEFENSE AGENCIES
FY 1985 R D T & E PROGRAM

EXHIBIT R-1

APPROPRIATION: 0450 D DIRECTOR OF TEST + EVALUATION, DEFENSE

DATE: 01 FEB 1984

LINE NO	PROGRAM ELEMENT NUMBER	ITEM NOMENCLATURE	ACT	FY 1983	FY 1984	FY 1985	FY 1986	THOUSANDS OF DOLLARS
1	65111D	FOREIGN WEAPONS EVALUATION	6	11,600	10,800	12,000	13,655	U
2	65804D	TEST AND EVALUATION	6	43,400	38,200	50,000	58,400	U
		DEFENSEWIDE MISSION SUPPORT		55,000	49,000	62,000	72,055	
TOTAL DIRECTOR OF TEST + EVALUATION, DEFENSE				55,000	49,000	62,000	72,055	

PAGE D-6

UNCLASSIFIED

UNCLASSIFIED

DEFENSE MAPPING AGENCY
FY 1985 R D T & E PROGRAM

EXHIBIT R-1

APPROPRIATION: 0400 D RESEARCH DEVELOPMENT TEST & EVAL DEF AGENCIES

DATE: 01 FEB 1984

PROGRAM ELEMENT NO	ITEM NOMENCLATURE	ACT	THOUSANDS OF DOLLARS				S
			FY 1983	FY 1984	FY 1985	FY 1986	
27	62716B MAP/CHART/GEODESY	5			513		1,052 U
28	63701B MAP/CHART/GEODESY INV/PROTOTYPE DEV	5	15,326	15,634	14,961		14,787 U
29	64701B MAP/CHART/GEODESY ENGR DEV/TEST	5	8,719	5,569	8,273		8,668 U
36	35132B DMA EXPLOITATION PROGRAM	5			165,407		241,675 U
38	35159B DEFENSE RECONNAISSANCE SUPPORT ACTIVITIES	5	46,255	108,939	18,290		
	INTELLIGENCE AND COMMUNICATIONS		70,300	130,142	207,444		

TOTAL DEFENSE MAPPING AGENCY

70,300 130,142 207,444

PAGE D-7

UNCLASSIFIED

UNCLASSIFIED

DEPARTMENT OF DEFENSE (OSD AND OASDS)
FY 1985 R D T & E PROGRAM

EXHIBIT R-1

APPROPRIATION: 0400 D RESEARCH DEVELOPMENT TEST & EVAL DEF AGENCIES

DATE: 01 FEB 1984

PROGRAM LINE ELEMENT NO	ITEM NOMENCLATURE	ACT	FY 1983	FY 1984	FY 1985	FY 1986 C	THOUSANDS OF DOLLARS
13	63220D SURVEILLANCE, ACQUISITION AND TRACK	2		10,000	721,000	1,491,200	U
14	63221D DIRECTED ENERGY	2		10,000	489,000	1,020,000	U
15	63222D CONVENTIONAL WEAPONS	2		10,000	356,000	870,300	U
16	63223D SYSTEMS CONCEPT AND MANAGEMENT	2		10,000	99,000	137,500	U
17	63224D SUPPORT PROGRAMS	2		10,000	112,000	270,800	U
18	63225D JOIN DOD-DOE MUNITIONS TECH DEV	2			10,000	10,000	U
	ADVANCED TECHNOLOGY DEVELOPMENT			50,000	1,787,000	3,799,800	
43	63702D SPECIAL TECHNOLOGY OFFICE/USDR&E	6		4,700	7,950	4,964	U
44	63703D COUNTER INSURGENCY & SPECIAL TECH	6			10,136	2,482	U
46	65104D TECHNICAL SUPPORT TO USDR/E	6	14,568	28,170	21,421	28,037	U
47	65106D GENERAL SUPPORT FOR PA/E	6	1,825	1,959	3,231	5,314	U
48	65107D SUPPORT TO POLICY	6	5,294	2,938	7,714	10,227	U
49	65108D GENERAL SUPPORT FOR NET ASSESSMENT	6	3,097	3,721	4,801	5,375	U
50	65109D GENERAL SUPPORT FOR MRA/L	6	2,335	2,350	2,939	4,404	U
57	01015D TECHNOLOGY TRANSFER FUNCTIONS	6	2,000	2,155	920	1,956	U
	DEFENSEWIDE MISSION SUPPORT		29,119	45,993	59,112	62,759	
	TOTAL DEPARTMENT OF DEFENSE (OSD AND OASDS)		29,119	95,993	1,846,112	3,862,559	

PAGE D-8

UNCLASSIFIED

UNCLASSIFIED

DEFENSE ADVANCED RESEARCH PROJECTS AGENCY
FY 1985 R D T & E PROGRAM

EXHIBIT R-1

APPROPRIATION: 0400 D RESEARCH DEVELOPMENT TEST & EVAL DEF AGENCIES

DATE: 01 FEB 1984

PROGRAM LINE ELEMENT NO	ITEM NOMENCLATURE	ACT	FY 1983	FY 1984	FY 1985	FY 1986 C
1	61101E DEFENSE RESEARCH SCIENCES	1	104,258	108,600	102,500	119,300 U
3	62101E TECHNICAL STUDIES	1	1,000	1,200	1,500	1,800 U
4	62107E THIRD GENERATION DEFENSE TECHNOLOGY	1		8,000		U
5	62301E STRATEGIC TECHNOLOGY	1	163,897	205,500	150,700	249,700 U
6	62702E TACTICAL TECHNOLOGY	1	83,853	99,437	109,000	131,000 U
7	62707E PARTICLE BEAM TECHNOLOGY	1	36,277	33,100	17,400	32,400 U
8	62708E INTEGRATED CMD/CONTROL TECH	1	48,407	48,000	53,000	57,400 U
9	62711E EXPERIMENTAL EVAL MAJ INNOVATIVE TECH	1	244,770			U
10	62712E MATERIALS PROCESSING TECH	1	17,153	23,700	29,200	37,100 U
11	62714E NUCLEAR MONITORING	1	17,935	16,500	20,500	26,400 U
	TECHNOLOGY BASE		717,550	544,037	483,800	655,100
19	63226E EXP EVAL OF MAJOR INNOVATIVE TECH	2		283,615	204,300	200,000 U
51	65112E TECHNICAL ANALYTICAL SUPPORT	6			15,000	20,000 U
52	65502E SMALL BUSINESS INNOVATIVE RESEARCH	6	600			U
55	65805E TRI-SERVICE NATL LASER TEST RANGE	6		25,000		U
56	65898E MGT HQ (RESEARCH/DEVELOPMENT)	6	10,450	11,400	11,430	11,812 U
	DEFENSEWIDE MISSION SUPPORT		11,050	36,400	26,430	31,812
	TOTAL DEFENSE ADVANCED RESEARCH PROJECTS AGENCY		728,600	864,052	714,530	886,912

PAGE D-9

UNCLASSIFIED

UNCLASSIFIED

NATIONAL SECURITY AGENCY
FY 1985 R D T & E PROGRAM

EXHIBIT R-1

APPROPRIATION: 0400 D RESEARCH DEVELOPMENT TEST & EVAL DEF AGENCIES

DATE: 01 FEB 1984

THOUSANDS OF DOLLARS

PROGRAM LINE ELEMENT NO	ITEM NOMENCLATURE	ACT	FY 1983	FY 1984	FY 1985	FY 1986	C
30	31011G CRYPTOLOGIC ACTIVITIES	5					
35	33401G COMMUNICATIONS SECURITY	5					
40	35167G COMPUTER SECURITY	5					
42	35885G TACTICAL CRYPTOLOGIC ACTIVITIES	5					
	INTELLIGENCE AND COMMUNICATIONS						

TOTAL NATIONAL SECURITY AGENCY

PAGE D-10

UNCLASSIFIED

UNCLASSIFIED

DEFENSE NUCLEAR AGENCY
FY 1985 R D T & E PROGRAM

EXHIBIT R-1

APPROPRIATION: 0400 D RESEARCH DEVELOPMENT TEST & EVAL DEF AGENCIES

DATE: 01 FEB 1984

PROGRAM LINE ELEMENT NO NUMBER	ITEM NOMENCLATURE	ACT ---	THOUSANDS OF DOLLARS				S E C
			FY 1983 ----	FY 1984 ----	FY 1985 ----	FY 1986 ----	
12	62715H DEFENSE NUCLEAR AGENCY	1	314,000	321,458	347,014	389,102	U
TOTAL DEFENSE NUCLEAR AGENCY			314,000	321,458	347,014	389,102	

PAGE D-11

UNCLASSIFIED

UNCLASSIFIED

DEFENSE RECONNAISSANCE SUPPORT PROGRAM
FY 1985 R D T & E PROGRAM

EXHIBIT R-1

APPROPRIATION: 0400 D RESEARCH DEVELOPMENT TEST & EVAL DEF AGENCIES DATE: 01 FEB 1984

THOUSANDS OF DOLLARS

PROGRAM LINE ELEMENT NO	ITEM NOMENCLATURE	ACT	FY 1983	FY 1984	FY 1985	FY 1986 C
39	351591 DEFENSE RECONNAISSANCE SUPPORT ACTIVITIES	5	124,120	318,186	380,713	
TOTAL	DEFENSE RECONNAISSANCE SUPPORT PROGRAM		124,120	318,186	380,713	

PAGE D-12

UNCLASSIFIED

UNCLASSIFIED

DEFENSE COMMUNICATIONS AGENCY
FY 1985 R D T & E PROGRAM

EXHIBIT R-1

APPROPRIATION: 0400 D RESEARCH DEVELOPMENT TEST & EVAL DEF AGENCIES

DATE: 01 FEB 1984

PROGRAM LINE ELEMENT NO	ITEM NOMENCLATURE	ACT	FY 1983	FY 1984	FY 1985	FY 1986	THOUSANDS OF DOLLARS
20	35108K COMMAND AND CONTROL RESEARCH	2		1,882	2,011	2,443	U
21	63735K WMMCCS ARCHITECTURE	3	1,262	1,227			U
22	32016K NMCS-WIDE SUPPORT	3	8,490	15,317	12,064	9,803	U
23	32017K WMMCCS ADP-JTSA	3	22,861	7,868	1,530		U
24	32019K WMMCCS SYSTEM ENGINEER	3	42,503	39,452	30,637	28,994	U
25	33131K MINIMUM ESSENTIAL EMER COMM NETWORK	3	9,845	12,613	15,213	15,905	U
	STRATEGIC PROGRAMS		84,961	76,477	59,444	54,702	
26	21135K CINC C2 INITIATIVES	4	700	2,060	2,134	2,123	U
33	33126K LONG-HAUL COMMUNICATIONS (DCS)	5	19,424	20,866	9,937	10,192	U
34	33127K SUPPORT OF THE NCS	5	4,490	3,119	8,244	4,622	U
	INTELLIGENCE AND COMMUNICATIONS		23,914	23,985	18,181	14,814	
TOTAL	DEFENSE COMMUNICATIONS AGENCY		109,575	104,404	81,770	74,082	

PAGE D-13

UNCLASSIFIED

UNCLASSIFIED

DEFENSE INTELLIGENCE AGENCY
FY 1985 R D T & E PROGRAM

EXHIBIT R-1

APPROPRIATION: 0400 D RESEARCH DEVELOPMENT TEST & EVAL DEF AGENCIES

DATE: 01 FEB 1984

PROGRAM LINE ELEMENT NO	ITEM NOMENCLATURE	ACT	THOUSANDS OF DOLLARS				FY 1986 C
			FY 1983	FY 1984	FY 1985		
31	31301L GENERAL DEFENSE INTELLIGENCE PROGRAM	5					
32	31398L MANAGEMENT HEADQUARTERS GDIP	5	233	339			
37	35140L EMERGENCY PREPAREDNESS	5		600	3,950		783 U
41	35884L INTEL PLAN AND REVIEW ACTYS	5					
	INTELLIGENCE AND COMMUNICATIONS						

TOTAL DEFENSE INTELLIGENCE AGENCY

PAGE D-14

UNCLASSIFIED

UNCLASSIFIED

DEFENSE LOGISTICS AGENCY
FY 1985 R D T & E PROGRAM

EXHIBIT R-1

APPROPRIATION: 0400 D RESEARCH DEVELOPMENT TEST & EVAL DEF AGENCIES

DATE: 01 FEB 1984

PROGRAM LINE ELEMENT NO	ITEM NOMENCLATURE	ACT	FY 1983	FY 1984	FY 1985	FY 1986 C
45	63705S MANUFACTURING TECHNOLOGY	6		1,000	3,100	10,000 U
53	65801S DEFENSE TECHNICAL INFO CENTER	6	16,000	16,235	18,988	24,467 U
54	65802S INFORMATION ANALYSIS CENTERS	6	4,000	4,315	4,168	5,011 U
	DEFENSEWIDE MISSION SUPPORT		20,000	21,550	26,256	39,478
TOTAL	DEFENSE LOGISTICS AGENCY		20,000	21,550	26,256	39,478

THOUSANDS OF DOLLARS

PAGE D-15

UNCLASSIFIED

UNCLASSIFIED

UNIFORMED SERVICES UNIVERSITY HEALTH SCIENCES
FY 1985 R D T & E PROGRAM

EXHIBIT R-1

APPROPRIATION: 0400 D RESEARCH DEVELOPMENT TEST & EVAL DEF AGENCIES

DATE: 01 FEB 1984

PROGRAM LINE ELEMENT NO NUMBER	ITEM NOMENCLATURE	ACT	FY 1983	FY 1984	FY 1985	FY 1986 C
2	61101W IN-HOUSE LAB INDEPENDENT RESEARCH	1	1,800	1,767	1,874	1,991 U
TOTAL	UNIFORMED SERVICES UNIVERSITY HEALTH SCIENCES		1,800	1,767	1,874	1,991

THOUSANDS OF DOLLARS

-----S

PAGE D-16

UNCLASSIFIED

NTIS does not permit return of items for credit or refund. A replacement will be provided if an error is made in filling your order, if the item was received in damaged condition, or if the item is defective.

Reproduced by NTIS
National Technical Information Service
U.S. Department of Commerce
Springfield, VA 22161

This report was printed specifically for your order from our collection of more than 2 million technical reports.

For economy and efficiency, NTIS does not maintain stock of its vast collection of technical reports. Rather, most documents are printed for each order. Your copy is the best possible reproduction available from our master archive. If you have any questions concerning this document or any order you placed with NTIS, please call our Customer Services Department at (703)487-4660.

Always think of NTIS when you want:

- Access to the technical, scientific, and engineering results generated by the ongoing multibillion dollar R&D program of the U.S. Government.
- R&D results from Japan, West Germany, Great Britain, and some 20 other countries, most of it reported in English.

NTIS also operates two centers that can provide you with valuable information:

- The Federal Computer Products Center - offers software and datafiles produced by Federal agencies.
- The Center for the Utilization of Federal Technology - gives you access to the best of Federal technologies and laboratory resources.

For more information about NTIS, send for our FREE *NTIS Products and Services Catalog* which describes how you can access this U.S. and foreign Government technology. Call (703)487-4650 or send this sheet to NTIS, U.S. Department of Commerce, Springfield, VA 22161. Ask for catalog, PR-827.

Name _____
Address _____

Telephone _____

- Your Source to U.S. and Foreign Government Research and Technology.